TECHNOLOGY D

CAR CRAFT

NOVEMBER 1956
25c

CUSTOMIZE WITH "PLASTIC SURGEON"

ONE-PIECE WINDSHIELD FOR '49-'52 CHEVROLETS

see page 36

CUSTOMIZE WITH "PLASTIC SURGERY"

You can repair and restyle auto bodies with TAP fiberglassing KITS!*

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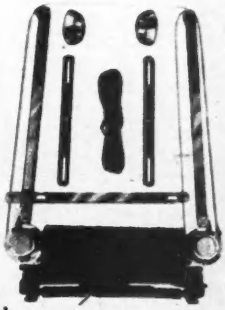

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CAR CRAFT

The "Custom Car" Magazine

Vol. 4
Published Monthly
No. 7

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cover

How would you like to purchase a complete restyling kit for your '49-'51 Ford. Sound great? Well, it's true, thanks to a young lad named Lee Rockwell of Tustin, California. Lee's custom '49 Ford can be found on our cover this month undergoing a special face lifting session. The operation is called "Customizing with the Plastic Surgeon." Who's the "Plastic Surgeon?" You are, see page ten. Ektachrome by Bob D'Olivo

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WORDS from the EDITOR

ONE very important aspect of promoting a weekend automotive event that many custom and hot rod car clubs seem to be completely incognizant of is an item called—*"publicity."* Many times we here at CAR CRAFT are approached as to why we did not put in an appearance at last week's auto show or automotive event. The answer is simple. We were not informed. Not only were we left standing at the "station," but more important, many active hot rod and custom car enthusiasts living in nearby areas were also unfortunately "benched" for the occasion, due to the event's poor publicity releases. We're not trying to dish out the opinion that we should be personally invited to every automotive event that takes place, but we are merely attempting to project an example illustrating the value of good *advanced publicity*, as compared to that handled poorly which severely handicaps any event from the standpoint of fellow enthusiasts participation and support.

Successfully publicizing a future club-sponsored automotive event is a very easy chore to accomplish. Requirements are no more than a two or three man committee appointed by the club. This publicity committee is actually an "advertising agency" in every sense of the word. It's their job to see that the advertising done on the event is placed where it will do the most good both for inducing participation and attracting spectators. Let's say that the future event planned is to be an auto show. Immediately we surmize that the show will be supported by custom car, hot rod and sports car participation. What better notice could be served these contingents than that of placing posters or legible mimeographed sheets in custom body shops, hot rod or speed establishments. Local drive-in restaurants and accessory stores also serve as another prospective medium for enlistment. Further "tub-thumping" can be done by calling on local newspapers, and automotive magazines. Consider though, that monthly publications work some thirty to sixty days in advance, so notification has to be well ahead of their deadlines. All these publicity outlets are generally more than happy to cooperate and assist in promoting activity to which they are just as dedicated as you, the sponsoring club. *Why so bashful?—dick day*

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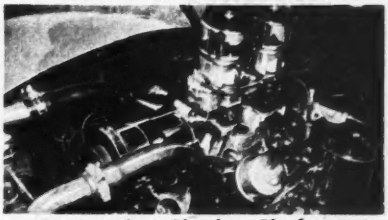

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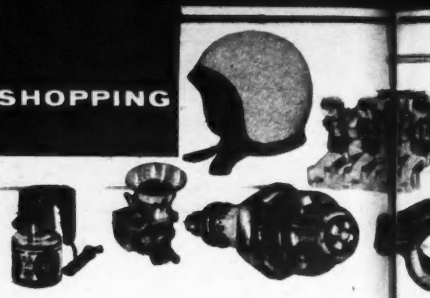

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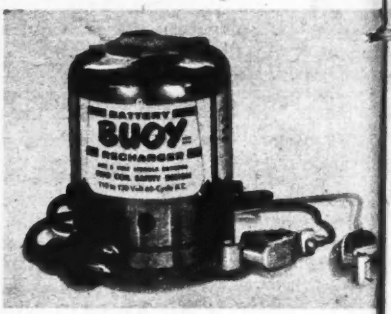

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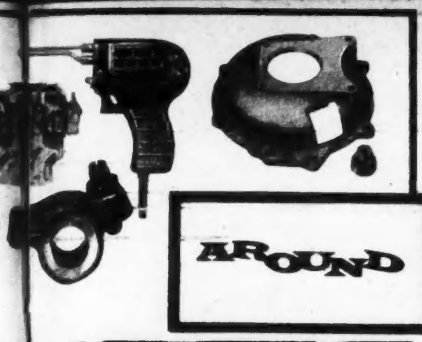

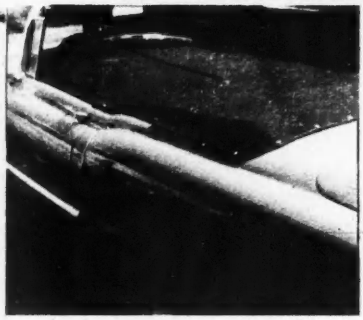

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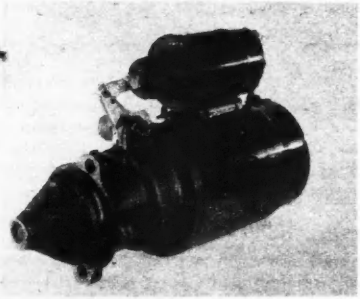

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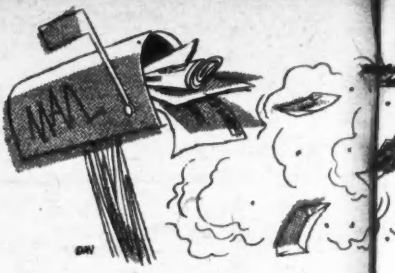
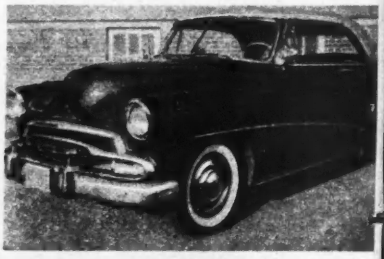


BEAT OUT — AGAIN?

Dear Sir:

I am enclosing a couple of snapshots of my Bel Air Chev, which by the way, was well on

its way to completion about the time you introduced your "Customizing The Chevy" series. Seems our thoughts run the same channel. The car has a '54 Chev engine with special ignitor, dual carburetors and exhaust. Grille is '54 Pontiac, taillights '55 Plymouth and headlights have been fitted with '55 Olds



headlight rims. '56 Buick Roadmaster side trim is installed breaking off at the rear fender. The car has been lowered some three inches — and all the work mentioned was done by yours truly!

— John Bengston
Willmar, Minnesota

It looks as though you and CAR CRAFT have built a pair of "Gold Dust" twins, John.— Ed.

HE DOOD IT!

Dear Sir:

I buy your magazine every month and sure do enjoy your how-to-do-it articles. If you don't believe me then check out some of the customizing that I have done to my '50 Merc. I borrowed a welding outfit for the necessary welding, but when it came to leading, etc.,

I used a small Bernze-Matic hand torch. The hood is nosed and all trim is removed from the deck lid. Headlights were frenched using the stock headlight rims. The rear door handles have been removed. The grille bar is an accessory item. I'm a member of the "Fair View Rockers".

— Pete Bojowski Jr
Holyoke, Mass.

You've just joined the club, Pete, nice job.— Ed.

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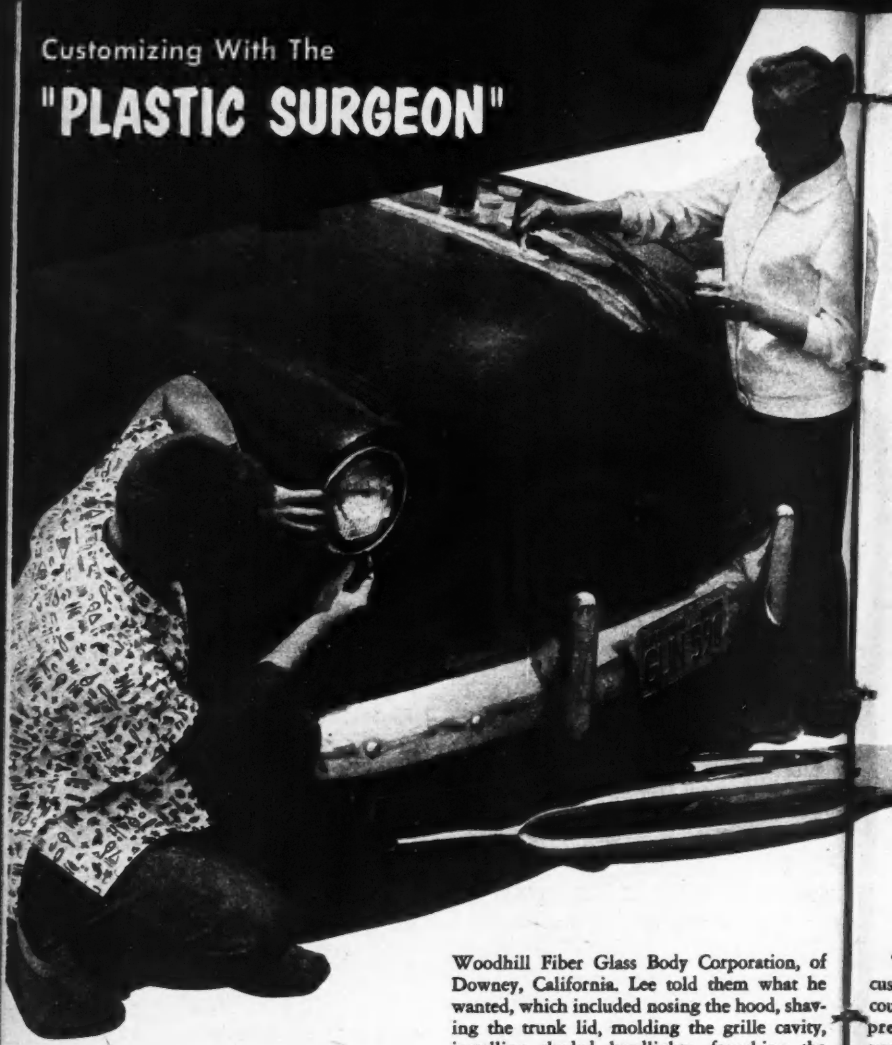
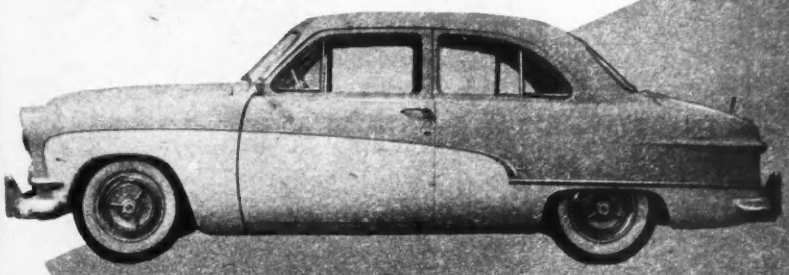


NOW, FOR THE FIRST time in customizing history, a complete restyling kit is available for '49-'50, and '51 Fords. This new kit is made up of pre-cast fiberglass components and bolt-on accessories. Such a package came about when Lee Rockwell, a 16-year-old youth from Tustin, California, in searching for an easy method to conservatively restyle his '49 Ford tudor, collaborated with the Woodhill Fiber Glass Body Corporation, of Downey, California. Lee told them what he wanted, which included nosing the hood, shaving the trunk lid, molding the grille cavity, installing shaded headlights, frenching the taillights, etc. Accommodating Lee's wishes, the Woodhill firm went to work and developed certain pre-cast fiberglass parts which, when adapted, transposed his '49 Ford into a shining showpiece. One of the large advantages of this new kit, is that there is no expensive body tools required, only hand tools are deemed necessary to accomplish each of the restyling projects.

A NEW CONCEPT IN CUSTOMIZING — complete restyling kit for all '49-'50, and '51 Fords

Text and Photos by Jim Potter



Graphic evidence of what can be accomplished with the new "Plastic Surgeon" restyling kit is Lee Rockwell's sharp '49 Ford. Kit is designed for customizing any '49-'51 Ford.

The key to this easy customizing method, of course, is the use of the prefabricated fiberglass parts. These consist of a molded grille piece, a hood filler piece (not necessary on the '51 Ford), shaded headlight components and molded taillight housings — all bonded to the metal of the body with a proven "plastic surgery" method.

The "Plastic Surgeon" kit, as it is called, contains the materials required to do any one

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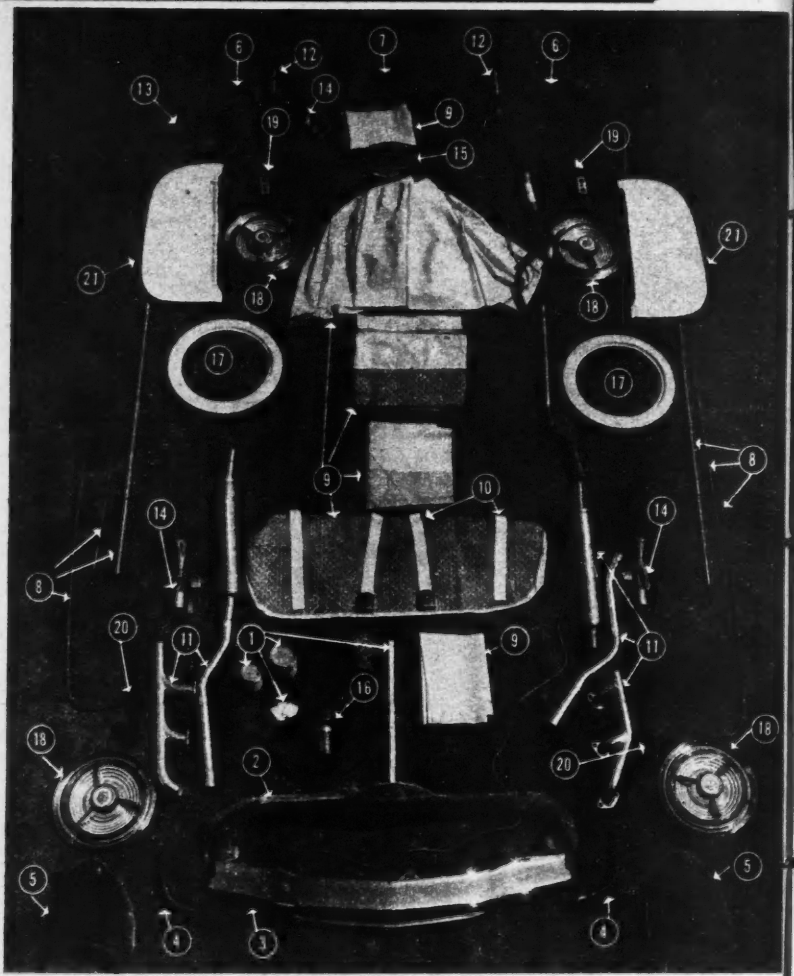


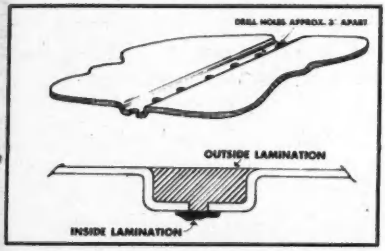
Pictured here is the complete "Plastic Surgeon" kit for '49-'50, and '51 Fords. Components can be identified and priced by corresponding part's number with price list at right. Kit can be purchased as a complete unit or by individual parts. For information write: Lee Rockwell, Post Office Box 1, Tustin, California.

or all of the customizing projects. Secret ingredient of the kit is a new epoxy resin and catalyst hardener that has been found to be entirely satisfactory in bonding glass fiber to metal as permanently as a metal-to-metal weld job.

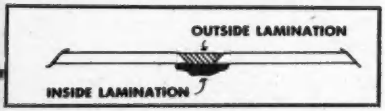
The basic procedure for customizing with the "Plastic Surgeon" kit is as follows. You first remove the chrome that you want to replace with that one-piece look; clean the metal completely bare of all paint, wax and grease; mix just enough "Plastic Surgeon" epoxy resin and catalyst hardener to do the particular job you're working on at the moment; saturate the fiberglass mat with the mixture and apply to the area being reworked. You allow this to dry, exposing the working area to direct sunlight or heat lamps to shorten the curing time, and then finish off the surface much the same as you would metal. Sounds simple, and it is. And, anyone can do it.

As proof of the quality of work that can be achieved, take a look at young Rockwell's smooth '49 Ford. He did all the work himself with occasional help from fellow custom car enthusiasts, using only the prefabricated fiberglass pieces mentioned earlier for all body restyling and "bolt-on" custom accessories for all of the finishing touches.

In order to make the process more specific and easily understandable, on the following pages you will find a complete step-by-step photo story on nosing the hood of Lee's '49 Ford. In subsequent issues, we're going to follow Rockwell's other customizing projects. You'll be able to modernize your own car by following these detail photos on molding a grille, installing shaded fiberglass headlights, frenching the taillights, filling side trim holes, and finishing the '49 Ford to auto show condition. All inquiries on this new and easy fiberglass customizing kit are now being handled through Lee Rockwell. He has compiled complete information on the kit as well as manufacturer's brochures on the bolt-on accessory items. Write: Lee Rockwell, P.O. Box 1, Tustin, California.



Here is end view showing you how to make material laminations for the hood filling story that follows on the next page. Holes are first drilled in the hood trough. Outside lamination is made, followed by an underneath lamination which bonds the two materials together for added strength.



The above illustration shows method used to fill any trim hole, etc. Hole to be filled is first countersunk slightly. Next, make your outside lamination of glass mat and resin. On the underneath side of the hole, make another lamination that will bond with the outside patch. When material is dry, grind off outside material to height of metal surface.

NOSING AND DECKING	
1. Plastic Surgeon kit	$ 5.95
MOLDING GRILLE	
2. Molded fiberglass grille piece (includes small piece for hood on '49 and '50 models)	19.95
3. 1954 Pontiac chrome grille bar	25.70
4. Two Ford chrome pieces, cut from parking light	NC
SHADED HEADLIGHTS	
5. Molded fiberglass shaded headlights	23.95
FRENCHED TAILLIGHTS	
6. Molded fiberglass frenched taillights	15.95
CUSTOM ACCESSORIES	
7. Chrome license plate frame	3.49
8. Ford Crestliner side chrome	14.95
9. Sure-Fit seat covers, headliner, kick panels, including armrests	99.00
10. Safety belts (two sets)	9.95
11. Belond Equal-Flow Exhaust system	50.20
12. Chrome tailpipe extension tips, each	4.95
13. Dual radio antennaes	11.70
14. Electric rear deck and door latches, each	9.95
15. Rear seat radio speaker	6.95
16. Ah-oooo-ga horn	14.95
17. Snap-on white sidewalls for tires, four	12.95
18. Chrome wheel discs, four	29.95
19. Rear lowering blocks	3.33
20. Front lowering spindles	39.95
21. Rear fender skirts	6.95
Total	$410.72

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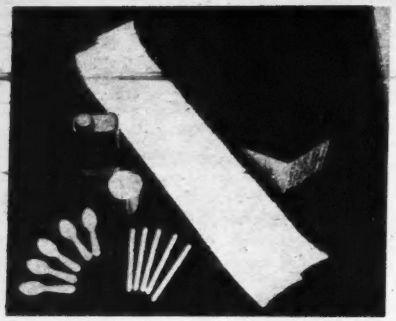
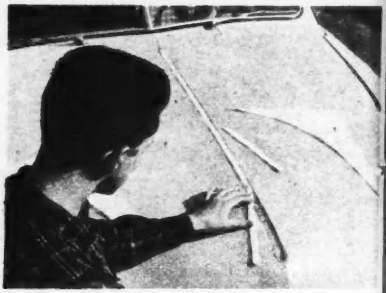


The "Plastic Surgeon" kit contains all necessary materials for removing trim and filling holes. Selling price is $5.95.

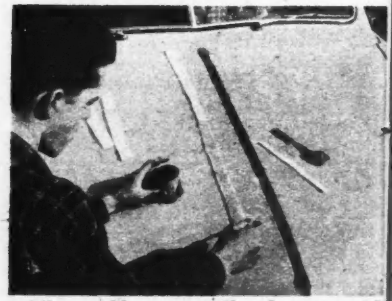
1. Thoroughly clean all paint from trough with electric grinder or sandpaper. Use solvent to remove wax and oil from groove.

2. Drill extra holes three inches apart with 1/8" drill allowing resin to seep through trough to underneath lamination.



3. Cut strip of fiberglass mat to fill hood. Glass cloth is not used since pattern shows through finished surface.

4. Mix five parts of "Plastic Surgeon" resin with one part catalyst hardener. Stir solution 5 minutes before applying.



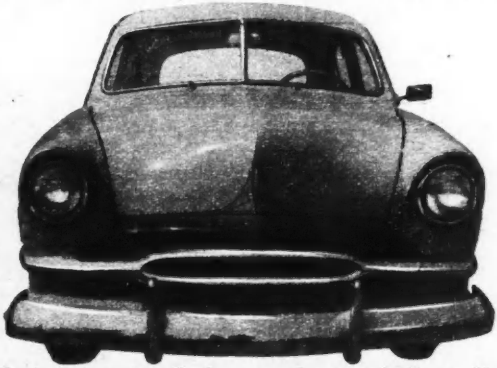
5. Thoroughly saturate fiberglass mat with resin to fill hood trough. Rubber gloves are recommended. Avoid skin contact.

6. Fill hood trough completely, working air bubbles out of resin with spoon. Next, make your underneath side lamination.

7. With glass thoroughly dry, grind surface smooth with sanding disc. A fine dust will be evident if glass is properly cured.

8. Using #320 wet or dry sandpaper with water, blocksand complete working area removing all the surface irregularities.

9. With the hood surface smoothly sanded, now spray on prime paint. Sand again to perfection before applying finish paint.



Next month, "Plastic Surgeon" will show you how to duplicate this molded grille cavity using pre-cast fiberglass parts. Covered also will be hood filler piece for '49-'50 models and the installation of the '54 Pontiac center grille bar.

"How I Won the Pikes Peak Hill Climb"

Jerry Unser Jr., tells how he got the driving know-how for such a race

SHORTLY AFTER he had won the stock car division of the 1956 Pikes Peak Hill Climb last fourth of July in Colorado, Jerry Unser Jr., was in Los Angeles on a business trip and I managed to corner him for a couple of hours to toss a few hundred questions at him. What I wanted to find out was just how did a young fellow 23 years old get enough experience to win the toughest hill climb in the United States?

"Since I was four or five years old," Jerry told me, "I can remember dreaming of the day when I would drive a race car up Pikes Peak and of course these dreams always included me as the winner. My dad, Jerry Sr., and my uncle, Louis Unser, have been racing up the hill as long as I can remember and it was only natural that some of the enthusiasm they have for the race should rub off on me."

"When was the first time that you actually drove up the mountain, Jerry?", I asked.

"I rode up the mountain several times when I was young, but only as a spectator when the family went to watch dad and Uncle Louis race," said Jerry. "I didn't actually drive a car of any type up the mountain until after I was discharged from the Navy in 1955."

Jerry started his racing career at the age of 15 when he began driving jalopies on the dirt tracks around Albuquerque, New Mexico, his home town. He did real well at this type of racing with his dad around to give him a few driving tips and also to teach him a few mechanical tricks. At the age of 18, Jerry joined the Navy and thus entered a four year period where normally his race driving would have been shelved. Fortunately, three of his four years were spent in Hawaii where one of the hottest beehives of modified racing activity in the world is located. It is not uncommon for 150 cars and 25,000 spectators to turn out for some of the Hawaiian modified races.

Jerry quickly fell into place in this type of racing which strongly resembled his old jalopy days. He won the Hawaii NASCAR championship in 1953 driving modifieds and although he missed several races during the 1954 season, he was runnerup. Some of the races he won during this period were driven with a broken arm he had picked up in a race accident. Jerry had the cast split down either side and would take it off before he went to the stadium for a race. After driving and usually winning the race, he would slip the cast back on and patch up the cracks with a little plaster of Paris.

The Navy kept him pretty busy in 1955 so he didn't have too much opportunity to keep up the modified racing although he did do a little sports car racing with a Triumph TR-2, always winning his class easily. He also entered a two mile hill climb with his TR-2 and shut down all opposition handily despite some being bigger, more powerful cars.

Just prior to the 1955 Labor Day running of the Pikes Peak hill climb, Jerry got out of the Navy and headed for Colorado Springs to see if he could find a car owner who would trust him with a race car. Joe Coniff had a car which had won five times previously with Al Rogers driving and since Al was retiring from the hill climb, Joe needed a driver. Jerry either did a good job of selling himself or Joe had enough respect for the name of Unser to give him a try because he got the job. Now, all Jerry needed was a little experience since he still had never even driven a passenger car up the hill.

"How did you learn to drive the hill, Jerry?", Al asked.

"First, I got a job driving one of the Grey Line Cadillac limousines that took tourists up the road to the top of the Peak," answered Jerry, "but I couldn't go too fast because the passengers would squawk. Trying to memorize all of the 180 turns on the 12 mile climb didn't work too well either since the tourists were naturally always asking me questions. After two weeks of this with the race only two weeks away, I decided that if I was going to get anywhere on race day, I was going to have to learn more about the road than I had by driving the limousine. So, I quit. I got into my own car, a '53 Willys F-head, and started driving up and down from dawn until dark."

"Most of the time, there was too much traffic on the road to actually try for speed so I concentrated mostly on learning the road so that I would know what was on the other side of each curve and also just what the road surface condition would be at any given point. Once in a while just after the road opened at six o'clock in the morning, there would be no traffic to worry about and I could try for a little speed and cornering technique. I split the road up into three sections. First was the bottom section from the start to Glen Cove, the winter ski lodge just below the halfway point; the second section was from the Cove to the gravel pit, about three miles from the top; and the third section from the gravel pit to the top."

Jerry then went on to explain the three sections in this way. "The first section up to the Cove is the hardest part because you can get going pretty fast, sometimes nearly 100 mph, the curves and road conditions vary widely and most important of all, you are below the timber line and the trees prevent you from seeing the road very far ahead."

"Just after you pass the Cove," Jerry went on, "the road passes above the timber line and you can see a little more of where you are going, the only trouble here being that you are now in the switchback area where the road zigzags its way up the barren face of the mountain and a slip could mean a pretty long fall. Although I call the first section the hardest, this is the more dangerous because if you leave the road down below there are trees and brush to break the fall, up in the switchbacks, there is nothing but a long drop. The top section above the gravel pit is the easiest of the three but there are still plenty of places where you can get in real trouble."

Jerry's practice sessions paid off pretty good for him in 1955, he took fourth place and might have done much better had he not bobbled once. He took one of the switchback curves too fast and got partially off the road, fortunately where there was a shoulder, ending up with a bent rear wheel. In his hurry to get going again, Jerry jammed the transmission in second gear and had to run the remainder of the race in second when he could have used high gear for much of the distance and gone faster.

For the 1956 race, Jerry arrived in Colorado Springs two weeks prior to the race on the fourth of July and called a car owner who had some months before offered him a ride. The car owner was too busy on the USAC championship circuit to get his hill climb car ready

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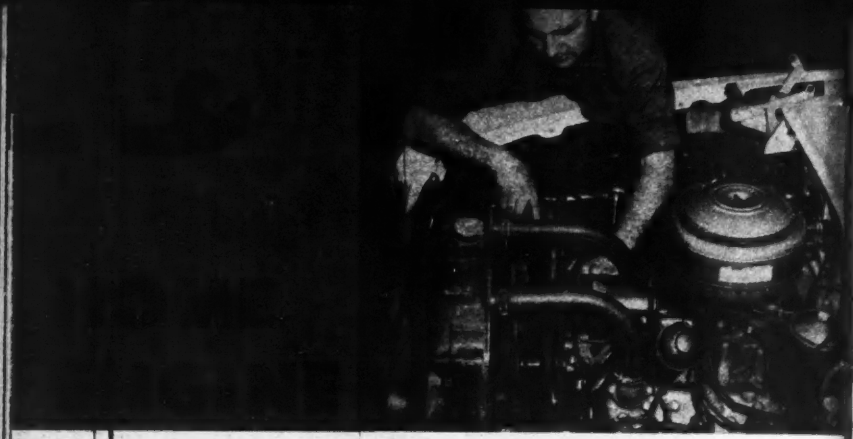
Winning form is displayed by Jerry Unser on hairpin corner covered with loose dirt.



TUNE-UP Part II

By Don Francisco

Photos by Ray Brock

more on getting the most from your car by investing a little time and very little money

BADLY CORRODED battery cable terminals should be removed from the battery and cleaned with a solution of baking soda and water. The baking soda solution neutralizes the acid in the corrosion and loosens it, enabling it to be flushed away with water. Battery boxes and other parts that have been subjected to the effects of battery acid for too long a time may have to be replaced. Before installing the terminals of old or new cables on the posts of a battery, scrape the inner surfaces of the terminals with a knife and open them so they can be easily slipped over the posts. The nuts on the terminal bolts must be tightened snugly but care must be taken when tightening them to not twist or bend the battery posts so much that they are torn loose from the plates in the cells. Check the level of the water in the battery's cells and, if necessary, fill them to the specified level with distilled water.

Tighten the intake and exhaust manifold nuts and bolts while the engine is at operating temperature. Don't lean too hard on these particular nuts and bolts because they sometimes break easily but be sure they are all tight. It's also a good idea to tighten the cylinder head nuts or capscrews as part of an engine tune up but don't try this without a torque wrench. Modern engines are touchy about the tension of their head bolts and an amateur mechanic can create trouble for himself by getting them too tight or leaving them too loose.

If a torque wrench is available tighten the head nuts to the specified torque and according to the pattern recommended by the manufacturer of the engine. The nuts or capscrews of engines with cast-iron heads should be tightened while the engine is hot but those of engines with aluminum heads should be tightened when the engine is cool. It is sometimes necessary to loosen head nuts or capscrews just enough to break set they have taken before they can be accurately torqued to correct tension.

1. Strong solution of baking soda and water is best for removing battery acids.

2. Carefully remove cable from battery, remove bolt, then soak in soda solution.

Many engines are now equipped with hydraulic valve lifters but there are still several that have solid valve actuating systems with some sort of means for adjusting the clearance between the ends of the valves and their respective lifter or rocker arm. The actual method of adjusting valve clearances will depend on the design of the engine but the primary purpose is to establish the correct clearance under the conditions specified by the engine's manufacturer. The valve clearances of most engines are supposed to be adjustable while they are at operating temperature and running but there are some that require valve settings to be made when the engines are cold.

When adjusting a valve's clearance, use a thickness gauge of the correct thickness to measure the gap between the end of the valve stem and its rocker arm or lifter. Increase or decrease the clearance as required until it is equal to the thickness of the gauge. The correct clearance is determined by the fit of the gauge, which should be neither loose nor tight, between the end of the valve and the member that actuates it. Be sure that none of the valves are given less than the specified clearance. When replacing valve chamber or rocker arm covers make sure their gaskets fit correctly.

If the engine has a manifold heater valve in the exhaust system of the butterfly type that has a shaft through the exhaust manifold or pipe and a counterweight on one end of the shaft, check the shaft to determine whether it will rotate freely. A shaft that has frozen tight and can't be moved can possibly be loosened and made operative again by lightly tapping its ends to move it back and forth endwise while, at the same time, pressure is exerted to rotate it back and forth. Quick engine warm up, as well as good high speed performance, depend on free operation of the manifold heater valve.

Next in line for attention is the engine's fuel system. This includes the fuel pump, fuel filters, fuel lines, carburetor, and air cleaner. The filter on the fuel pump and any filter of the accessory type that was installed after the car left the factory can be cleaned by removing their sediment bowl and filtering element and washing the bowl and element in clean gasoline or solvent. The filtering elements in some types of accessory filters have such small openings for fuel to flow through that they often become plugged with the gum present in some gasolines and must be soaked in carburetor cleaner or similar liquid to be made usable again. It's possible for a filtering element of this type, or any other type, for that matter, to become so tightly plugged with gum or solid material that it will not pass sufficient fuel for the engine to run.

It's not good practice to disturb the sediment bowl on a filter or fuel pump unless a new gasket for the bowl is at hand. Gaskets of the type used in filters and pumps dry and shrink with age and seldom seal as they should when they are reused. A leaky bowl gasket may not only leak fuel but it may also leak air if it is on the vacuum side of the pump, causing the pumping capacity of the pump to be reduced.

While you're working on the fuel pump inspect the flexible hose between it and the fuel line from the tank for kinks, cracks, brittleness, signs of air or fuel leakage, and loose connections. A hose that isn't in good condition should be replaced before it fails on the road.

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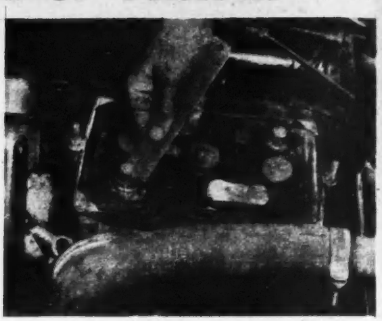
HOME ENGINE TUNE-UP PART II continued

3. Scrape inside of cable to provide a clean contacting surface when reinstalled.



4. Scraper or knife removes corrosion on battery post for good electrical contact.

Carburetors, because of their complex nature, present something of a problem to the backyard tune up artist. Most modern carburetors are so constructed that special tools and gauges must be used to take them apart and reassemble them correctly and special cleaning solutions are required to remove the deposits that collect on their interior surfaces and impair their operation. About all one can do to a carburetor if he doesn't have these tools and cleaners is tighten its mounting nuts and adjust its idle mixture and idle speed.

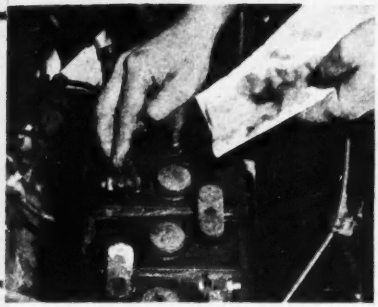
Before adjusting the carburetor remove its air cleaner and clean it according to the directions on the cleaner or as specified by the manufacturer of the automobile. While the air cleaner is off the carburetor inspect the choke mechanism for binding or other signs of faulty operation. Some automatic chokes have a small screen in their thermostat housing that can be removed for cleaning. However, before removing the thermostat housing cover note the position of its reference mark in relation to the marks on the housing so the cover can be replaced in its correct position without difficulty. Be sure the spring in the cover engages the choke shaft lever correctly when the cover is replaced.

The best method of adjusting the idle range of a carburetor is by attaching a vacuum gauge to the engine's intake manifold and then turning the idle mixture screws in and out to find the settings at which the highest vacuum is developed. When the point of highest vacuum is found, turn each of the screws out, or in the direction to richen the mixture, a fraction

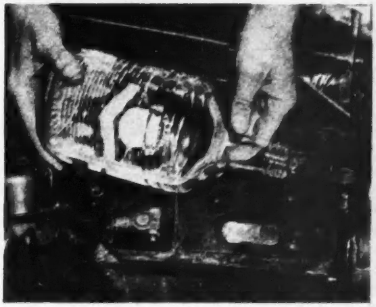
5. New cable bolts are next liberally greased to protect them from acid foam.

6. Always use two wrenches when working on clamps so battery posts won't suffer.

7. Heavy grease over post and cable end prevent acid foam, keep connection good.



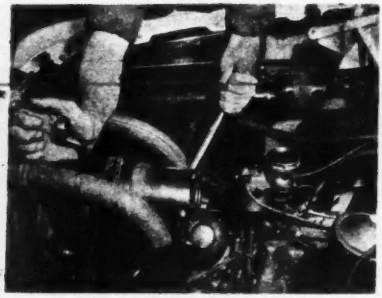
8. Use only distilled water the fill battery and don't fill above specified level.



of a turn to richen the mixture a slight amount. Adjusting the idle a bit on the rich side will prevent its being lean at a later time when atmospheric conditions change.

To adjust the idle mixture without a vacuum gauge, turn the adjusting screws in and out slowly and alternately until the smoothest idle speed is obtained. Then turn the screws out, as described before, to allow the air-fuel

Loose fan and generator belts in usable condition can be tightened but worn, frayed, or greasy belts should be replaced. The tension of belts is usually adjusted by one of two methods: either the generator is pivoted or otherwise moved to take up slack in the belt, or an idler pulley is pivoted on its mount to achieve the same effect. Belts of the earlier, wide type should not be tightened to as great



9. Use pry bar to hold generator in proper position, remove belt slack, tighten.

10. Air cleaner should be serviced regularly. Use heavy oil, but don't overfill.

ratio of the mixture to be just a bit richer than is required for the smoothest idle. After the mixture has been adjusted it will probably be necessary to adjust the throttle stop screw to obtain the correct idle speed. The idle speed of cars with automatic transmissions should be adjusted with the transmission in Drive range so the engine won't die at stop signs. Be sure to set the hand brake securely before putting the transmission in gear so the car won't run over someone while you're playing with the carburetor.

a tension as the narrower and much smaller belts now being used on practically all automobile engines. The larger belts should show a small amount of slack between their pulleys when pressure is exerted on them but the smaller type should be fairly tight. Do not, however, tighten a small belt bow-string tight because extreme tightness in a belt places excessive side loads on the bearings in water pumps and generators.

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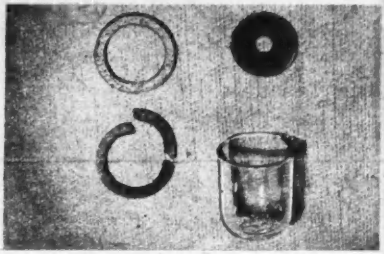
11. Fuel filter should be checked often, removed to drain water, other sediment.

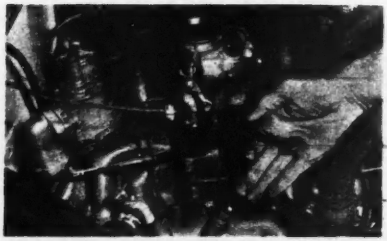


12. Clean glass bowl, replace brittle cork gasket and clean fine mesh screen.

Check the cooling system for leaks, rotted or cracked radiator or heater hoses, and rusty or oily water in the radiator. Leaks at joints between water hoses and the radiator or engine can often be stopped by tightening the clamps on the hoses. Rotted or cracked hoses should be replaced with new hoses of the correct type and size. Before installing a new hose use a wire brush or scraper to clean the fittings to which it will be clamped so the hose will have a clean surface on which to seat. Some fellows use gasket sealer on hose fittings but this isn't necessary if the fittings and the inside of the hose are clean.

This might be a good time to change to a summer or winter thermostat, or thermostats, as the case may be. If a change of thermostat is in order, remove the thermostat housing, the housing gasket, and the thermostat from the engine and scrape the housing's gasket surface and its mating surface on the engine to remove any particles of gasket or accumulations of rust or corrosion. Place the new thermostat in the recess in the engine and bolt the housing and a new gasket in place. Be sure the housing and thermostat are centered correctly in relation to each other while the capscrews that hold the housing in place are being tightened; otherwise, the housing may be broken by the pressure of the capscrews.

Leaks in the radiator or its tanks will require the professional services of a radiator repair man and a radiator full of rust, scale, or with an oily scum on its interior surfaces



13. Check carburetor base bolts and intake manifold bolts but do not overtighten.

14. Vacuum gauge can be bought cheap, is helpful in carburetor idle adjustment.

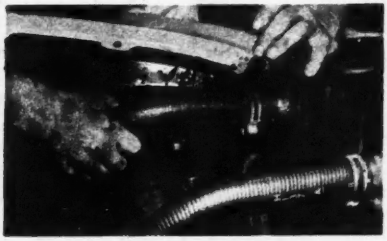
15. Remove old radiator hoses, check thermostats and clean all gasket surfaces.

16. Garden hose can be used to back flush block and radiator to remove rust, scale.

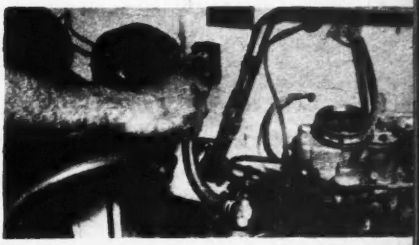
17. Radiator outlet, inlets should be wire brushed before installing new hoses.

may require a "boiling-out" treatment at a radiator shop. A cooling system that isn't in too bad a condition as far as rust and grease are concerned can often be cleaned satisfactorily at home by using one of the many solutions available for this purpose. One thing to remember, though, when using solutions of this type is to follow the instructions provided with them as closely as possible to eliminate the possibility of a poor cleaning job or bad aftereffects. A shot of rust inhibitor in the radiator after the cleaning treatment will retain the cooling system's clean condition for several months. Most auto parts stores and agencies can supply several brands of inhibitor.

Carefully done, a home tune up following this outline should correct many of the more common ills that beset an automobile engine and, just as important, prevent the probability of a good many failures frequently experienced on the road. But for the sake of your mental well-being and supply of spending loot, don't get carried away with your prowess and try to bull your way through some part of the engine or its accessories you don't understand. This can only lead to sadness.



18. New hoses of proper size are next but don't use grease or any other lubricant.



19. Heater radiator should be flushed and new hoses used. Use old hoses for length.

20. Water pump lubricant and rust inhibitor will keep cooling system in condition.

21. Inside view of old hose shows how deposits cut down size, clog radiator core.

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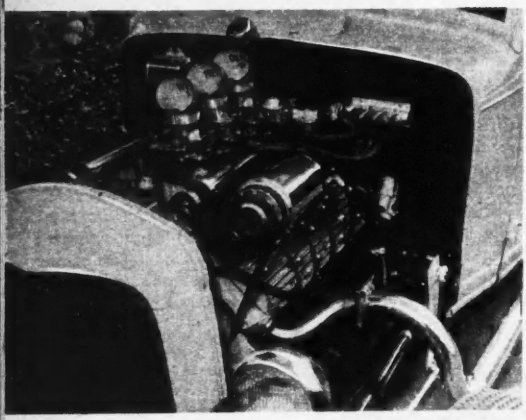
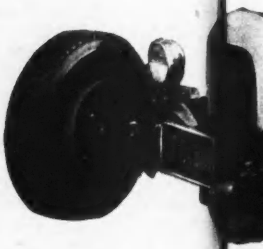
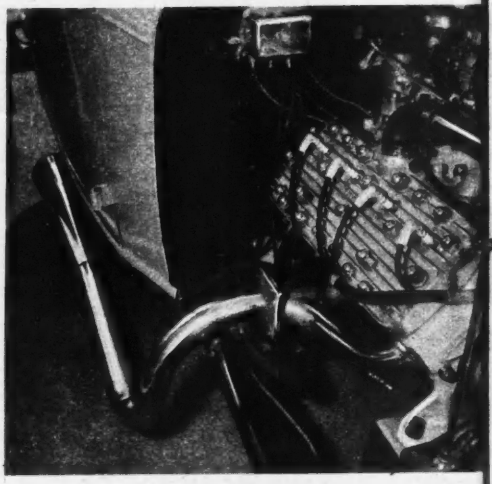


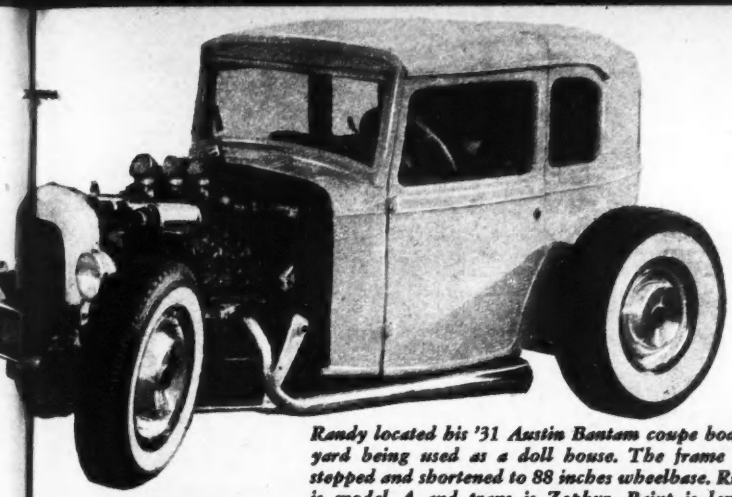


Photos by Joe Moore

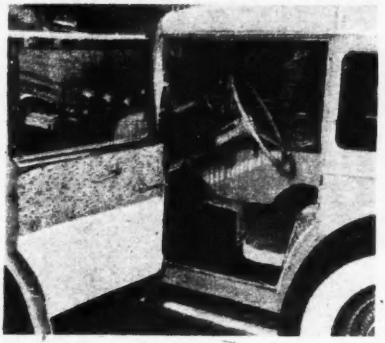
Power for Randy Chadock's short-coupled Bantam coupe is a '48 Merc with 3⅛ bore, ¼ inch stroke and 286 cu. in. Howard ground the cam, heads are Fenton, intake manifold is by Navarro. Car was built mostly for show, therefore much chrome.

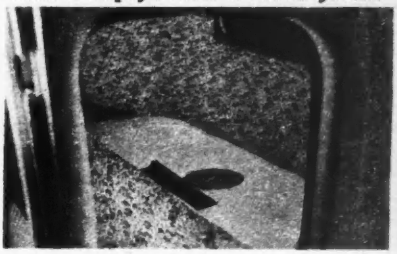


"W" type headers lead into a large chrome exhaust pipe with cycle type megphones for the drags while the regular exhaust system is routed from the bottom of the pipe to stock Willys mufflers located beneath the car. Neat ignition wiring comes from converted Zephyr ignition.

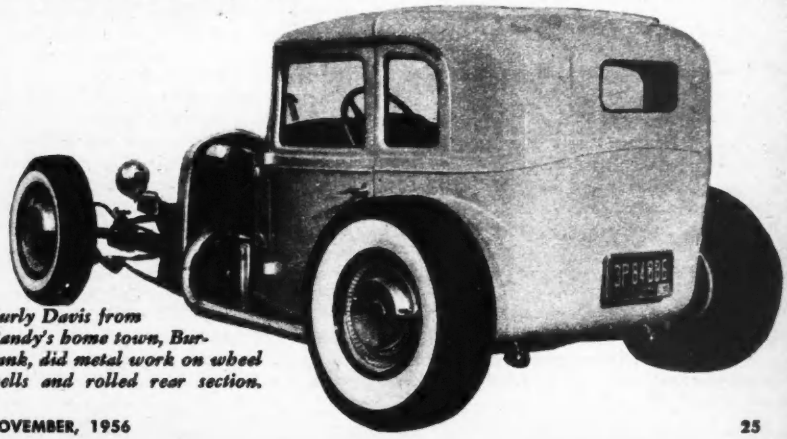


Randy located his '31 Austin Bantam coupe body in a back yard being used as a doll house. The frame is '29 Ford stepped and shortened to 88 inches wheelbase. Running gear is model A and trans is Zephyr. Paint is lemon yellow.



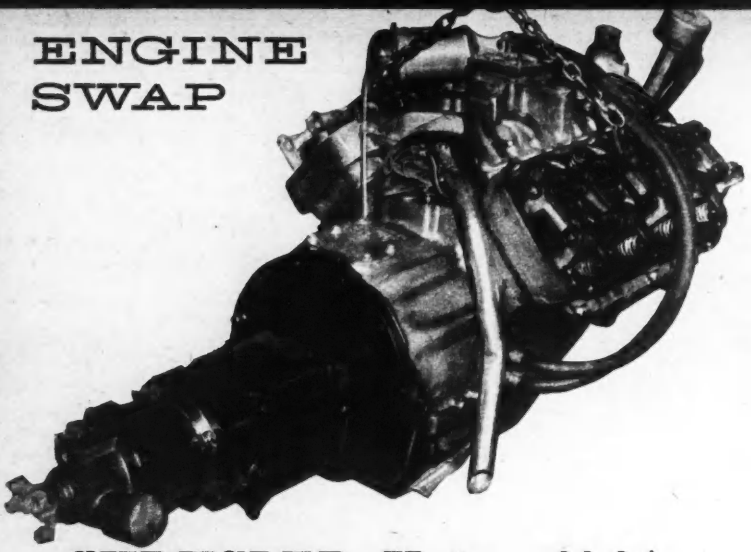


Interior is Naugahyde and frieze with black carpets. Radio is set behind seat and dash panel is custom made. Ken Ferris of Burbank, Calif., did the interior work.



Curly Davis from Randy's home town, Burbank, did metal work on wheel wells and rolled rear section.

ENGINE SWAP



By Ray Brock

CHRYSLER V-8 IN HUDSON PACEMAKER

almost four years have gone by since this engine swap was made but the car is still going strong

Photos by Colin Creitz

ENGINE SWAPS continue to be the subject about which the most mail arrives each month in our technical department so here we go with another one. This swap was made back in 1952 by Don Francisco and myself with a new '52 Chrysler V8 engine and my 1950 Hudson Pacemaker as the chassis. One reason why these pictures were dug up at this late date is that we have received several inquiries about engine swaps for Hudsons and also have had letters asking just what can be done when there is not enough clearance between the engine being installed and the firewall.

The Pacemaker chassis was originally chosen because it was the smallest of the Hudson cars at that time and the reason for the Hudson was that the '48-'54 models were very stable cars at high speeds. The purpose in mind for the car was strictly a highway car and not a dragging machine so for this reason the Hudson transmission and overdrive were retained and adapted to the Chrysler engine. For drags, a stronger gear box of the early Cad-LaSalle variety would be better.

As with any engine swap, the first move was to remove the hood, radiator and old engine so that the new engine could be tried for size. Lowering the Chrysler into the Pacemaker engine compartment and moving it back to the firewall as far as it would go immediately confirmed what we had predetermined by measurements, the firewall stopped the engine about three inches before it was back far enough to fit the adaptor that had been made to bolt the Chrysler V8 to the Hudson transmission. At this point, there were two ways to go, either move the engine back to the trans or move the trans forward to the engine.

To keep the weight of the heavier Chrysler back and eliminate any modifications to the Hudson center steering, we decided to chop the firewall and locate the engine rearward to engage the trans in stock position.

The adaptor between engine and trans was made of three thicknesses of ⅜ inch steel plate, one 16 inches in diameter to match the Chrysler bell housing, another of the same diameter but only 1 inch wide to space the first piece from the bell housing and a third piece to space the trans from the large diameter section. The Hudson front bearing retainer was used as a pattern for machining the latter piece so that the retainer would properly fit between adaptor and trans. The nose on the retainer was modified to fit a '49 Ford throwout bearing hub which used a Ford truck throwout bearing. The throwout arm was also '49 Ford hooked to the adaptor plate by means of a matching fulcrum. An eleven inch clutch disc to replace the Hudson wet disc could not be found to match the small Hudson spline on the main drive gear so one had to be made. The center hub from the old wet disc was cut loose and machined down to a smooth straight side. The inside of a disc from a '38 Chrysler eight (11 inch) was then machined out until the modified Hudson clutch hub could be pressed in. A penetrating arc weld around the hub on each side of the disc completed the clutch transformation. Incidentally, this same disc is still in use in the car today.

The Hudson pilot bearing could not be used since it was an open type designed for use with the wet clutch so a sealed bearing of the proper internal size was found in a Timken catalogue and an adaptor machined to fit the bearing to the end of the Chrysler crankshaft (see photos).

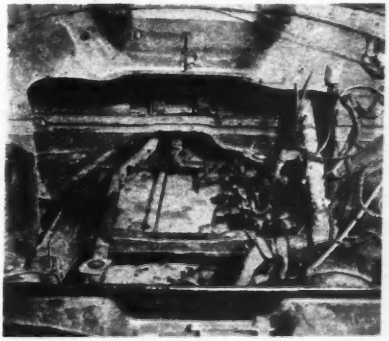
The column shift linkage was moved from the top to the bottom of the steering column and then shortened so that it was located higher on the column where it would not interfere with the left cylinder head. Clutch linkage was routed through a bell crank mounted at the rear of the brake master cylinder from where it went forward to activate the clutch throwout arm.

With the rear of the engine hooked to the trans and new mounts fabricated for the front of the engine, a new firewall was the next move. The exposed rear of the engine was covered with cloth and cardboard for backing and protection, then casting plaster formed over the large hole that had been made in the firewall. After the plaster had been contoured to meet the original firewall at the edges, a female plaster mold was made from this new shape. The female mold was then used to form a new firewall section of fiberglass which was anchored to the remaining firewall by sheet metal screws.

The electrical system on the Hudson was left unchanged by using the Hudson generator on the Chrysler engine. Dual exhausts were skillfully routed through the tight Hudson undercarriage by Sonny's Muffler Company of Monterey Park. Although a gap of almost twelve inches existed between the Chrysler fan and the Hudson radiator, there was no overheating problem even during traffic jams.

Immediately after the engine swap was finished, the car was driven to the Bonneville salt flats where the '52 Nationals were taking place and with less than 800 miles on the engine, driven through at a speed of 107.5 mph. This was with the engine completely stock (rated 185 horsepower) and only a two barrel carburetor. A four barrel carburetor was later adapted to the stock manifold and the speed checked by tachometer at approximately 118 mph. The smooth body lines of the 1950 two door Brougham sedan are unquestionably among the most streamlined ever to be used on an American production car.

The car was sold just this year and at last report still going strong with the new owner contemplating a bit of engine modifications for increased horsepower. Unless I'm mistaken, this should make it a real bomb.



Picture on the opposite page shows the Chrysler V8 with adapted Hudson transmission ready to go into engine compartment above. Note firewall section gone.

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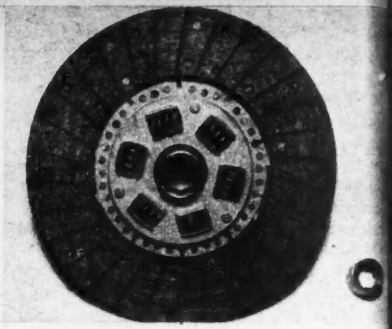
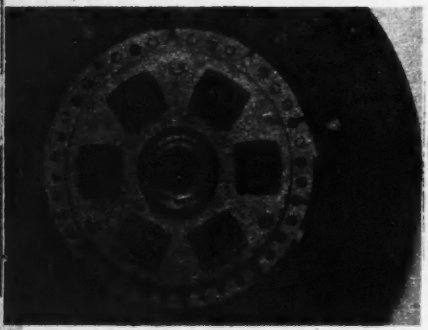
1. Engine mount at right is stock Hudson and other was fabricated, welded in to support much shorter overhead valve V8.



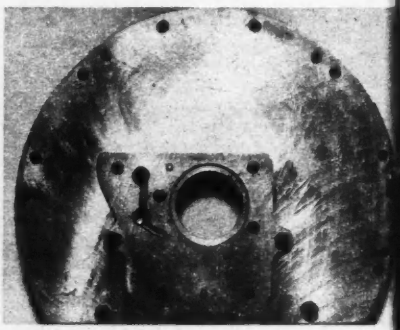
2. Clutch disc is early Chrysler 11 inch with splined hub machined to hold cut down Hudson disc hub at the lower right.



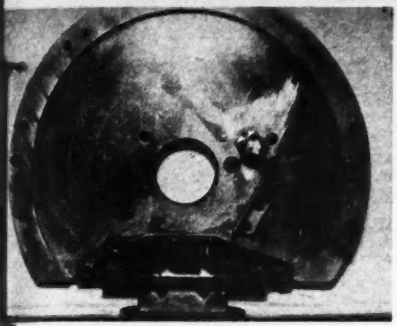
3. Disc could not be found to fit small Hudson spline so one had to be made. Hudson hub has been machined to press fit.

4. Penetrating arc weld on both sides of disc make adaption secure. Wet rags around disc prevented warpage from the arc heat.

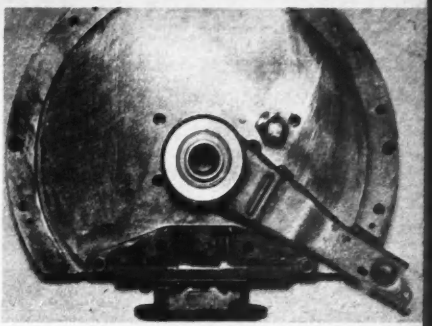
5. Eleven inch Borg and Beck pressure plate is heavy duty type used in large Chrysler straight eights and also Dodge trucks.



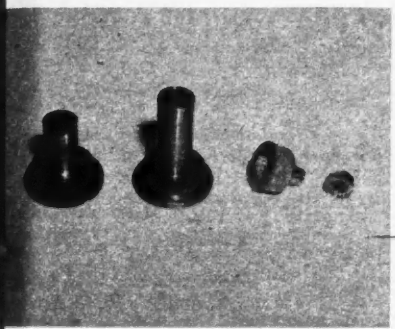
6. Rear view of homemade adaptor. The two large holes to left of center are for shifting rails which slide from the case.



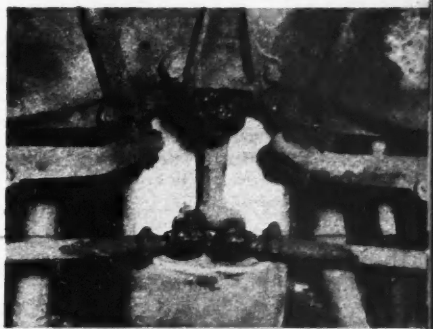
7. Front view reveals stock Hudson rear motor mount adapted to plate, '49 Ford throwout arm fulcrum and shield for rail.



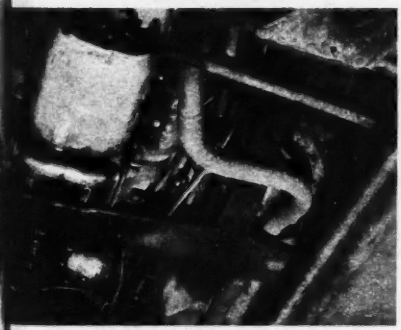
8. Throwout arm is '49 Ford, bearing is Ford truck. Lower section of Chrysler bell housing was notched for arm movement.



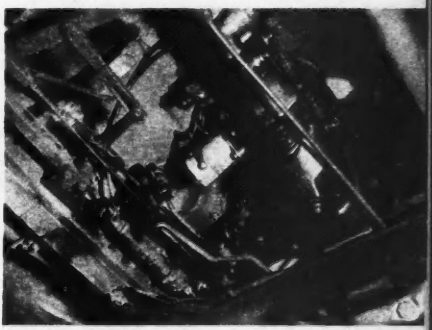
9. Left to right, Hudson retainer, new lengthened retainer, pilot bearing adaptor and small sealed Timken pilot bearing.



10. Hudson center steering cleared Chrysler oil pan in straight position but pan needed dent to give clearance on turns.



11. Finding room for an exhaust pipe down the left side of the car was quite a problem. Steering misses the starter easily.



12. Large bell crank was anchored near master cylinder so that clutch linkage could be operated with heavy offset rod.

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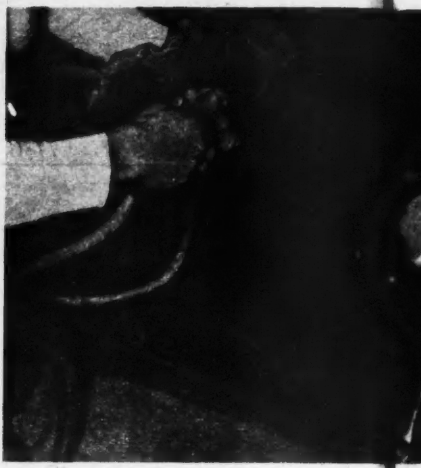
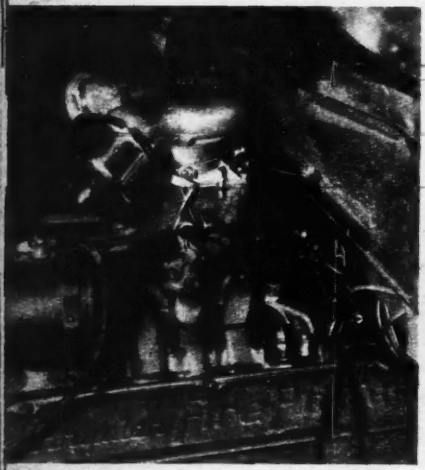
13. Making a new firewall was quite a job. Plaster mold was formed over rear of engine from inside the car with edges of the mold fitting the existing firewall metal.



14. Female mold was made from new shape, then fiberglass cloth, resin and mat used to form this new firewall. New section fits perfect, keeps the engine fumes out.

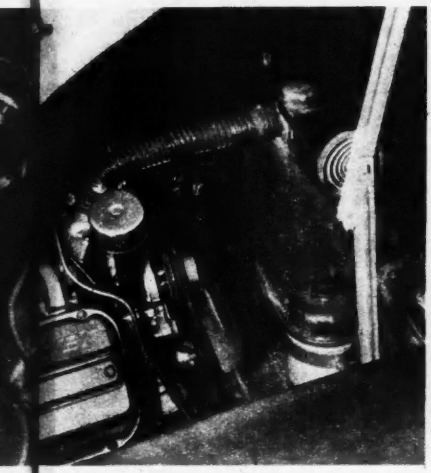


15. Stock Chrysler ignition is almost hidden back under new firewall section but can be quickly removed by moving the coil. The throttle cable is Harley-Davidson.

16. Hudson windshield wiper motor had to be moved for carburetor clearance so it was offset to the right six inches, cables shortened on one side, lengthened on other.

17. *Full flow oil filter wouldn't fit the block in stock position so was moved up front to fender panel with ⅜ inch neoprene hoses made up to carry oil supply.*

18. *Bypass valve keeps oil from draining out of filter when engine stops so small flex line was needed to carry oil from bypass valve back to engine at filler pipe.*

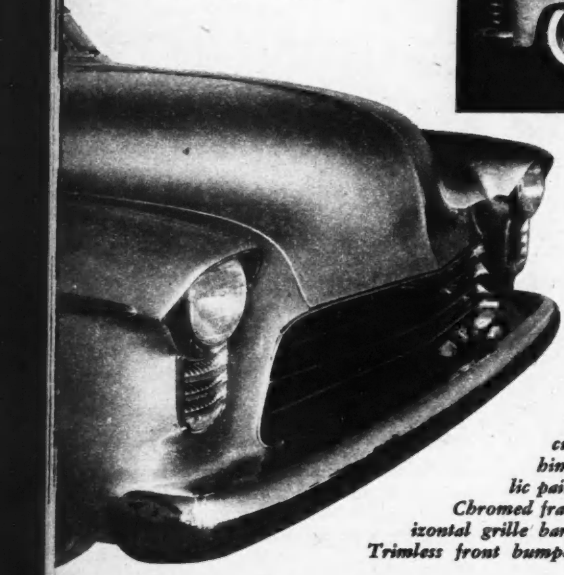


19. *Large stock Hudson radiator provides more than enough cooling area for new V8 even with engine 12 inches from radiator. Shroud wasn't needed even in traffic jams.*

20. *The completed job after four years of operation. Air cleaner is Nicson and latest carburetor is '55 Cadillac Rochester. The generator is an original from the Hudson.*

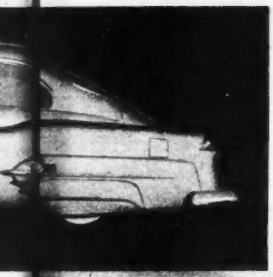
STACKED '50

Photos by Bob Hardee

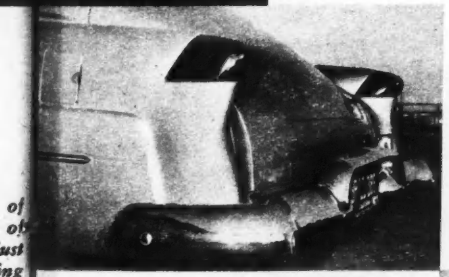


Robbie Martinez, operator of Broadway Auto Body Shop of Chula Vista, California, just doesn't sign off with building only customer cars. Each year he finds time to crank out a beautiful custom for himself. This year we find him tooling this dazzling golden metallic painted '50 olds with all the trimmings. Chromed frame encasing three special made horizontal grille bars emanates from '55 Chev pickup. Trimless front bumper also is from Chevrolet pickup.

Stock Olds headlight rims were replaced with '55 Cad rims lending shaded styling.

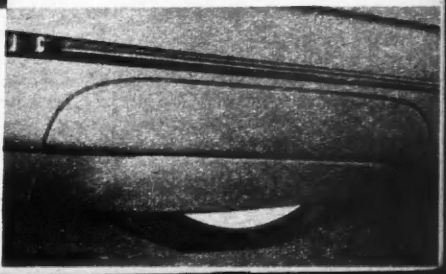


Low silhouette of the aluminous sedanette is largely due to the radical 4 inch lowering job performed both fore and aft. Side trim is stock except for '54 Merc rear fender trim bars that are adapted to lower portion of rear fenders. The long "stretched out" appearance of body is attributed to the Cad headlight and Packard taillight combo. Notice how the "filled" rear fender skirts create a lower illusional effect by matching off with the lower body line.



'55 Packard taillights have been built into the rear fenders. Small diameter welding rod was used to obtain the miniature rolled edge surrounding bullet shaped lenses. Three piece '55 Pontiac bumper is installed with the exhaust tips protruding from corners. Both doors and deck lid are now operated by an electrical push button system since all exterior chrome trim has been discarded from these components.

Close up of rear fender skirt depicts lower filled section. Robbie spent three weeks in customizing his Olds. Gold and black color combination was used on the interior to harmonize with exterior color. Riffle's Upholstery shop of same area did all work. Front hubcaps have 3 extra flippers added to hub. (see CAR CRAFT, June '56).



Norm's Auto Body RESTYLES the '49-'51 Mercury

THIS MONTH we have selected Norm's Auto Body to throw some custom torch work in the direction of the '49-'50, and '51 Mercury. Not only did this craftsman come up with a few new wrinkles for the club coupe, but he embodied the still popular body design with a new "brand" by cleverly grafting on just the right combo of late model components.

Body Modifications

Largest of all body modifications was the removal of the door posts which brings the club coupe's appearance up to date with a DeVille type design. Extra bracing on the chassis, body and top, compensates for any strength lost due to removing the door posts. Glass from a convertible is supplemented for

Illustrations by Bob Cadaret

CONTINUED

the newly shaped side windows. Door handles received the "deep six" and latches are now actuated by an electrical push button system. Probably the most effective modification incorporated into the bulbous body is the wedge shaped trim which was created by adapting lower side trim pieces from a '56 DeSoto. By employing this method of restyling the trim, stock rub strips remain unaltered, making for a very inexpensive approach to a contrasting two-tone paint job. All seams have been filled setting body off as a complete assembly.

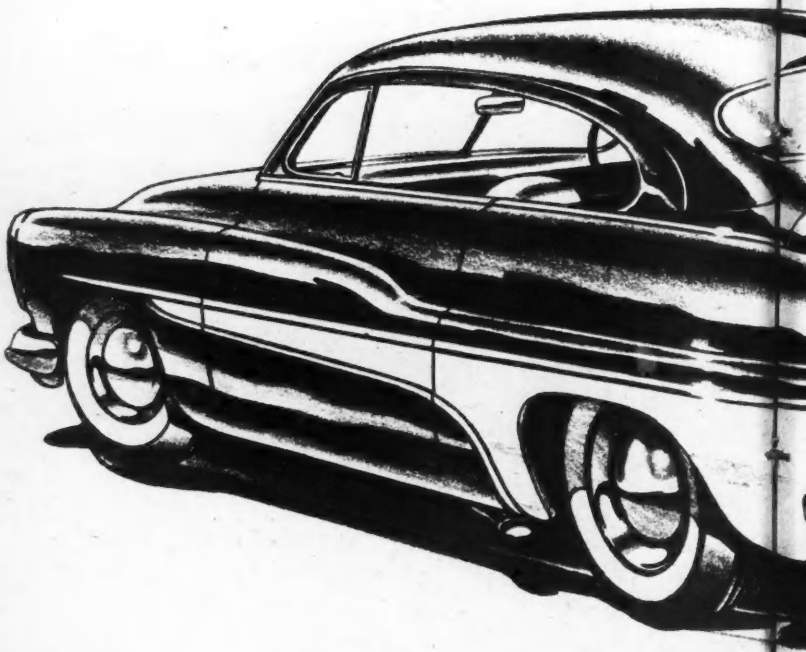
Hood, Grille and Headlight Modifications

Hood has same traditional flavor given most Mercs of this particular year and model, that of removing all exterior chromed trim, rounding front hood corners and incorporating a slight peak down the center. Grille cavity was transposed into a shallow, oblong shape by molding in another Merc grille shell of the same year only in an upside down manner. Nestling in the new opening is a complete grille assembly from a '55 DeSoto. The large headlight rims that are adapted to front fenders emanate from a '53 Buick. Front bumper remains stock, but has all attachment holes filled for trimless appearance.

Rear Fender and Taillight Modifications

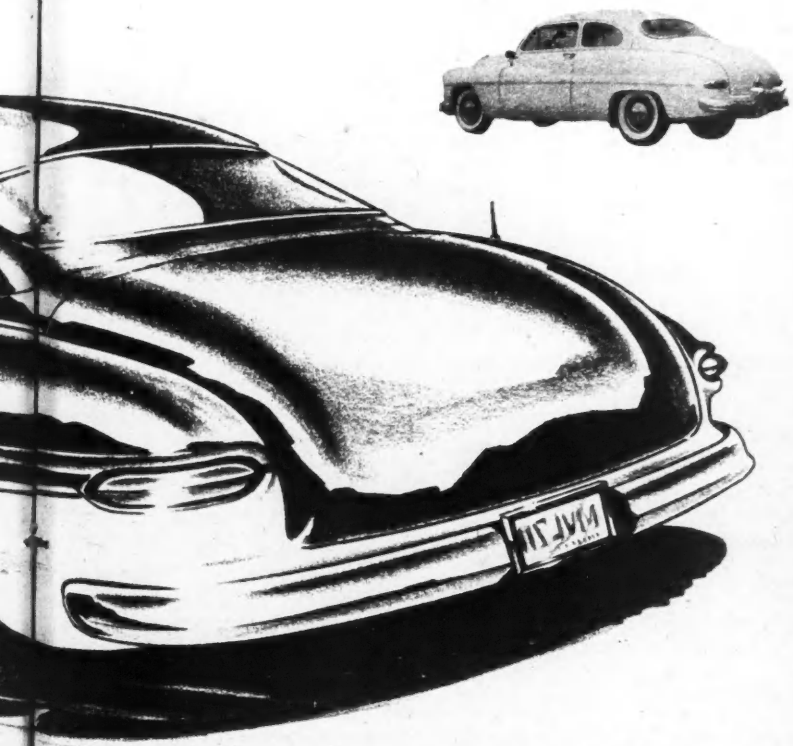
Highlighting rear fenders are the special LuCite taillight lenses that are neatly tunneled into corners of the body. Rear fender line has been extended rearward, cleverly circling the special taillight openings. Deck lid's chrome trim has been discarded and is

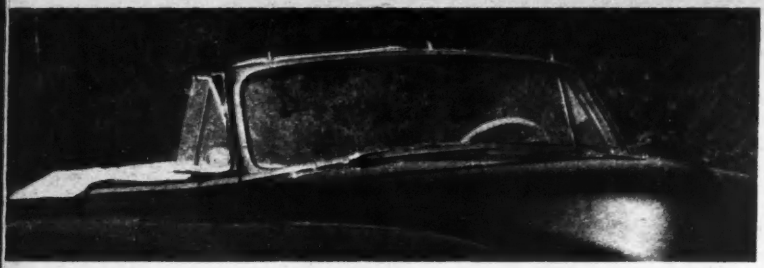
RESTYLING THE '49-'51 Mercury continued



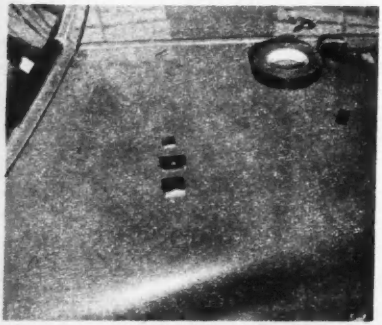
now operated by a manual cable release setup. Continuity of simplified styling is also carried through to the rear bumper, which has all bolt holes removed, duplicating that of the front bumper treatment. Norm's torch capers lend the '49-'51 Merc a new customized flavor, one that could be easily duplicated for a price just under the thousand dollar mark. Of course, any one of the innovations could easily be employed with other component crossbreeding, but basically we feel that Norm's concept of styling proves easy on the eyes and a real threat to those enthusiasts who thrive on mantle hardware consisting of glittering auto show awards. For those of you who wish to contact Norm, write: Norm's Auto Body, 4319 West Olive, Burbank, California.

PARTS AND PRICE LIST	Labor	Parts
Remove trim from hood and round front corners	$ 40.00	.....
Build grille opening (Merc grille shell)	100.00	$ 20.00
Install grille piece, parts included ('55 DeSoto grille)	75.00	.....
Adapt '53 Buick headlight rims onto fenders	60.00	50.00
Remove door handles replacing with electrical push button system	50.00	20.00
Adapt '56 DeSoto lower side trim (including parts)	50.00	.....
Remove door posts and fit side glass	150.00	50.00
Tunnel special made LuCite taillights (including lenses)	110.00	.....
Shave trunk lid and install pull cable release	25.00	.....
Fill bumper attachment holes and rechrome (front and rear)	60.00	.....
Two-tone paint job including material)	125.00	.....
	$845.00	$140.00
	140.00	
	$995.00	





ONE PIECE OLDSMOBILE WINDSHIELDS FOR '49-'52 CHEVROLETS AND PONTIACS



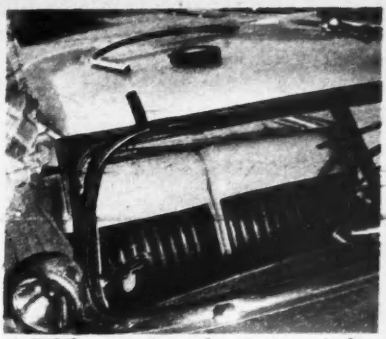
1. Parts needed besides "88" Olds glass are; two inside clips and an exterior clip.

ONE OF THE neatest component switches derived by present custom car enthusiasts for the '49-'52 Chevrolets and Pontiacs is that of replacing the stock two-piece windshields with a one-piece glass from a '50 Oldsmobile "eighty-eight". More frontal visibility is immediately obtained with this transposition, and a wider body appearance is achieved. Atlantic Glass Company of Los Angeles was cooperative in running through a routine installation for us, and with the following photographs that we recorded on the spot, you should be able to follow through with an identical alteration trouble free. An Oldsmobile rear view mirror of the same year is easily supplemented for rear vision, or the stock rear view mirror can be repositioned and installed.

2. Remove inside and outside side moldings. Work rubber loose with screwdriver.

3. Now remove the inside and the outside chromed center post trim from the frame.

4. Now work windshield loose with screwdriver while applying pressure with foot.



5. While removing other section of glass, use tape to set rubber back in the channel.

6. Cut the center rubber insulator from the rubber molding with a razor blade.

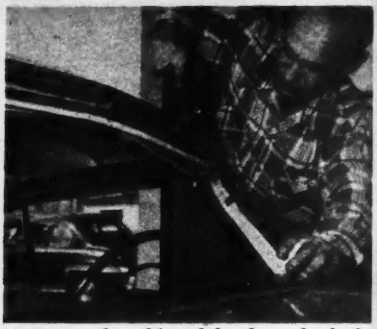
7. Using a fine tooth hacksaw, remove the center post from the windshield opening.

8. Next, trim rubber windshield molding off neatly where center post was removed.

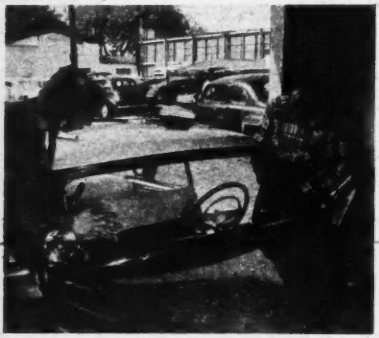
9. VERY IMPORTANT step is to remove small screw from the center of the frame.

CONTINUED

10. With glass completely removed from opening, now remove the rubber molding.

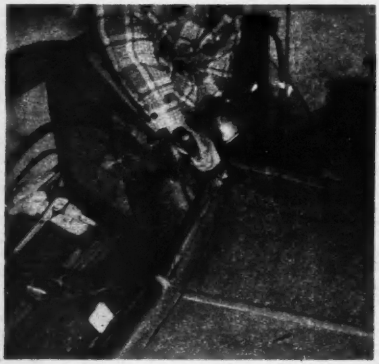


11. Fit up the Oldsmobile glass, check the fit, use a hammer to align the metal frame.



12. Replace rubber molding along lower frame area and install Olds windshield.

13. Lubricate with light oil before squeezing rubber and glass behind the frame.

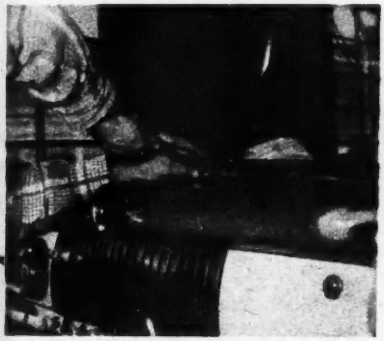


14. While applying pressure, use screwdriver to slide molding and glass in place.

15. Work inside lip of molding under metal frame using oil and a screwdriver.

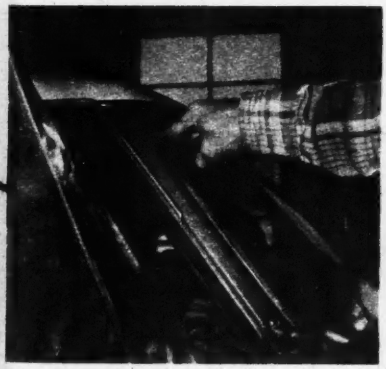
16. Position and align outer chrome frames over the rubber molding and reinstall.

17. On the inside of the car securely reinstall all the inner garnish moldings.

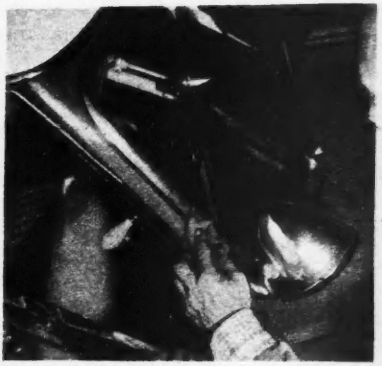


18. The new, inside lower center frame clips, are now securely placed in position.

19. The new chromed frame clip for the outer frame is now pressed into position.



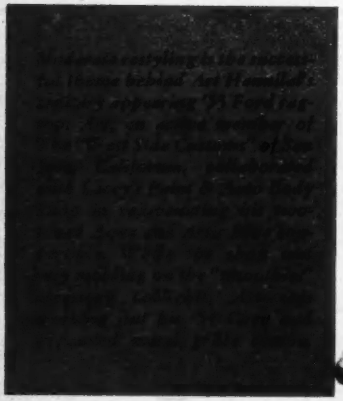
20. A special glass "leak-proof" sealer is squeezed along the outer frame's seam.

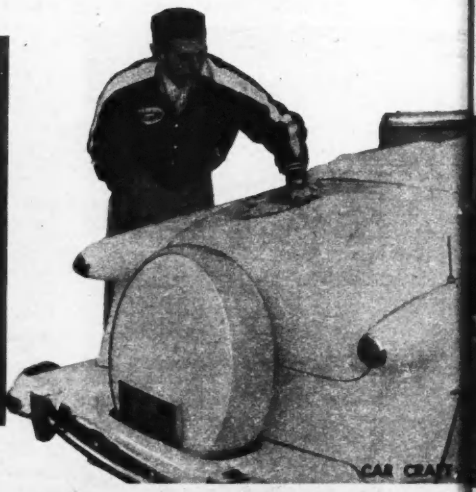


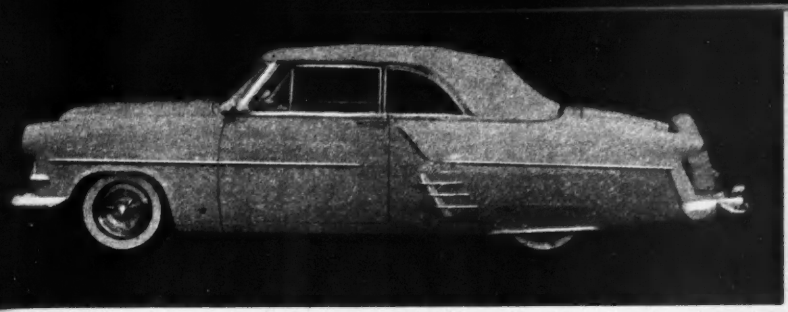
21. Last step is to wipe accessive sealer from the frame and clean the windshield.

Semi SHOWPIECE

Grille effect was created by splicing '54 Chev center grille bar and vertical teeth into Ford's stock end bars, then backed by expanded metal.





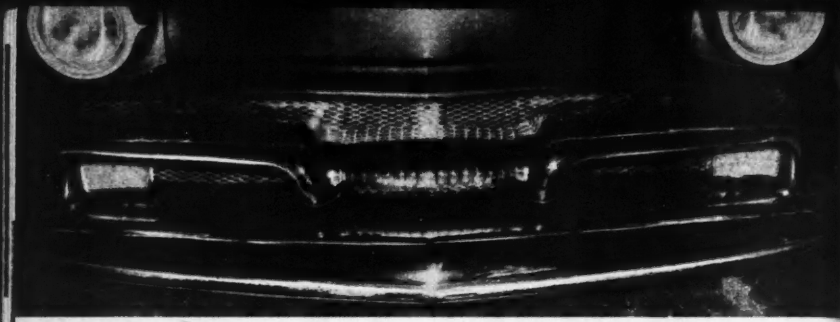


Side trim alterations consisted of adapting '54 Oldsmobile (88) rub strips along the rear fenders for two-tone paint divider. Three '54 Mercury trim teeth were used along the lower leading edge of the Ford's rear fenders combined with small two-toned painted area. Suspension systems, both front and the rear, have been lowered a full four inches.

Photos by Eric Rickman

Accessory continental tire kit, extended gravel shield and '56 Ford bumper with exhaust outlets lends rear styling.

All deck lid and hood trim has been eliminated. Headlights have been frenched to fenders utilizing stock rims. Forward peak of front bumper has been slightly modified allowing flush fit for accessory type license plate frame. Note tonneau cover arrangement.

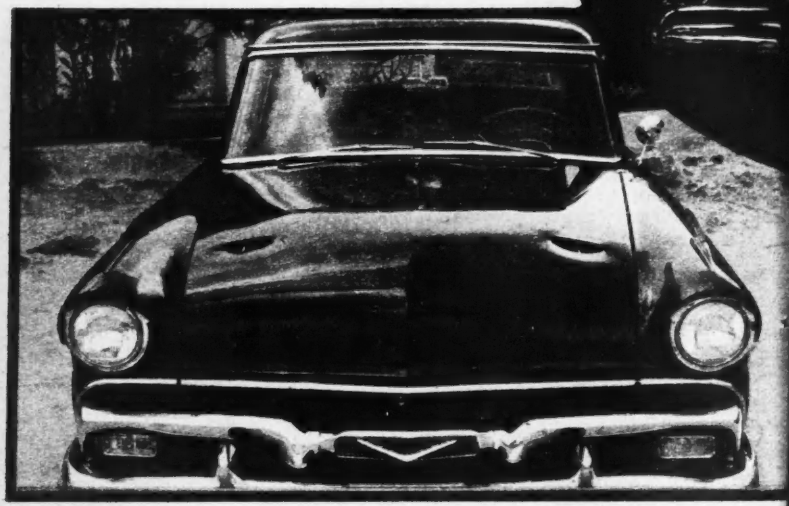


The '55-'56 Plymouth grille bar is easily adapted to '52-'54 Ford grille cavities. Combo of expanded metal is latest custom gimmick for this particular Ford model.

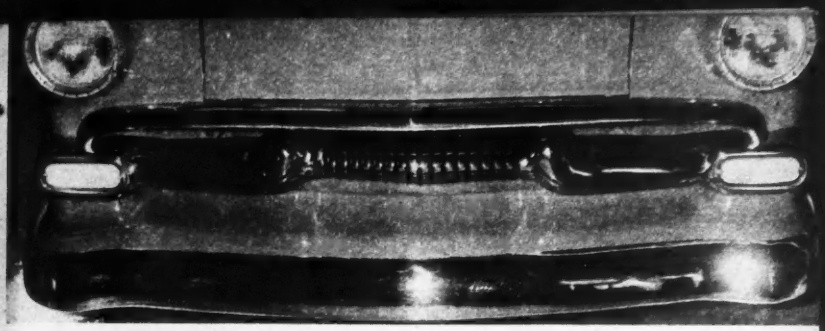
STYLE REPORT:

'55-'56 plymouth grille bars— versatile grille pieces indeed!

Photos by Rickman, Winfield, Barris



The '56 Ford grille opening also lends itself nicely to the Plymouth bar. Width of the bar can be altered easily by modifying the small center piece for necessary fit.



To achieve just a slightly different effect this '53 Chevrolet owner installed the '55 Plymouth bar in the grille cavity upside down, fairing it neatly into parking lights.

Slightly angled, this Plymouth bar adaption nestles nicely in the grille cavity of this '49-'51 Ford. Note center piece.

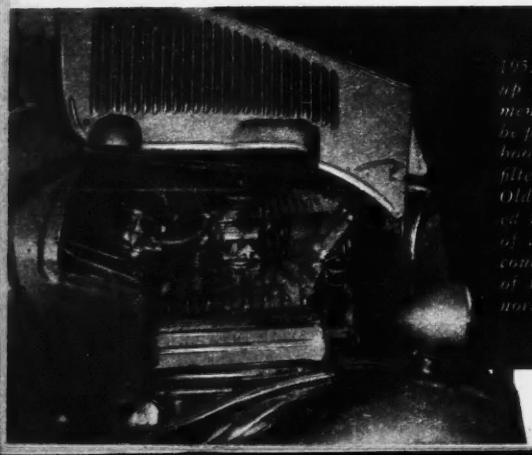
A LATE GRILLE PIECE that seems to be making quite a hit with customizers recently is the '55-'56 Plymouth grille bars. Both bars are so designed that they can be used in almost any make or model with little or no modification. Cars that possess long oblong shaped grille cavities such as: Ford, Chevrolet and Mercury, are naturals for the Plymouth grille bar installation. Since the bars are made up in three sections, two end bars and center piece, it's very easy to shorten the complete assembly to fit a small grille opening by merely modifying the center piece slightly. The following photographs show you some of the better installations and are quite self-explanatory for determining all the necessary modifications.

'49-'52 Chevrolets are naturals for the Plymouth grille bar installation. For this particular model stovebolt, the bar lends considerable more width to the front end.

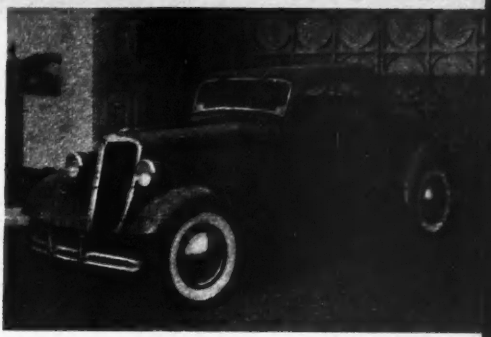
COUPE--
a la Chrysler

Photos by Floyd Smith

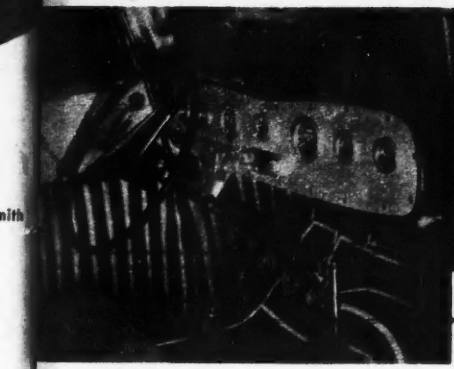
that unbeatable combination of big engine and light chassis shows up again, this time a Chrysler V8 in a '33 Ford coupe

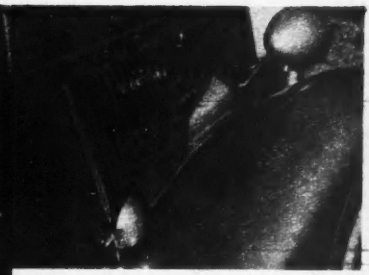


1932 Chrysler V8 more than took up room in the engine compartment so a couple of bubbles had to be provided in both the fenders and hood side panels to clear the oil filter and rocker arm covers. '32 Olds Carter four barrel was hooked to the intake manifold by use of a homemade adaptor. No fan could be used due to closeness of radiator but engine runs cool normally with the Ford core.



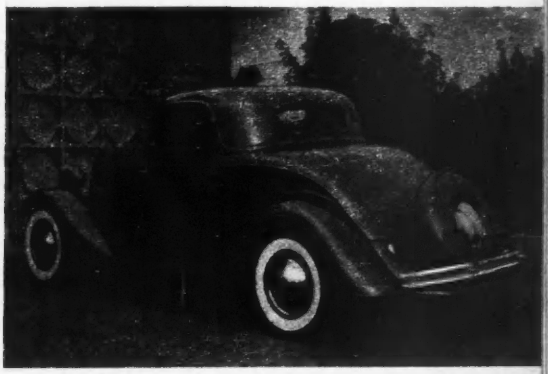
Earl Baird bobbed the front fenders about four inches on his car, then used a shortened '41 Ford front bumper. Large top view at left reveals steel top has replaced original cloth.





Sheet metal insert replaced the '33 dash and Stewart-Warner instruments tell engine operation. Above view shows allowance for Chrysler width.

Body of '33 Ford coupe is nearly stock with only a two inch chop to the top. Rear bumper is from a '41 Ford and taillights the '38 Ford. Late Ford Hydraulic brakes have replaced the original mechanicals but the rest of the suspension was left stock. Object seen beneath fender is header plug for left side which outlets homemade headers when car is raced at drags.



CUSTOMIZING THE CHEVY

BY DICK DAY

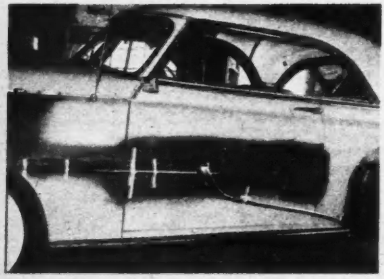
PART VII

Dual Side Trim Installation

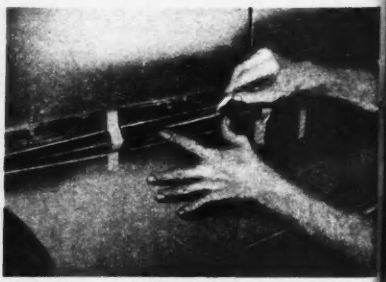
WITH THIS MONTH'S installment on side trim our series on "Customizing The Chevy" comes to a close. The trim that we have devised for the Chevrolet is a combination of '53 Packard "Patrician" and '55 Oldsmobile rear fender trim. As you can easily see, the combination offers the latest trend in two-tone painting and lends quite a flashy touch to the Chev's original body style. The installation is an easy project, one that could actually be incorporated on any make or model. Minor hole filling is required after removing the stock side trim which was thoroughly covered in part four of the series in the August '56 issue. Since this article terminates this particular customizing series, we imagine you would like to see just what the finished car will look like — kindly turn to page fifty-two.

1. Remove all stock trim and fill trim holes (see CAR CRAFT, August '56, Part IV.)

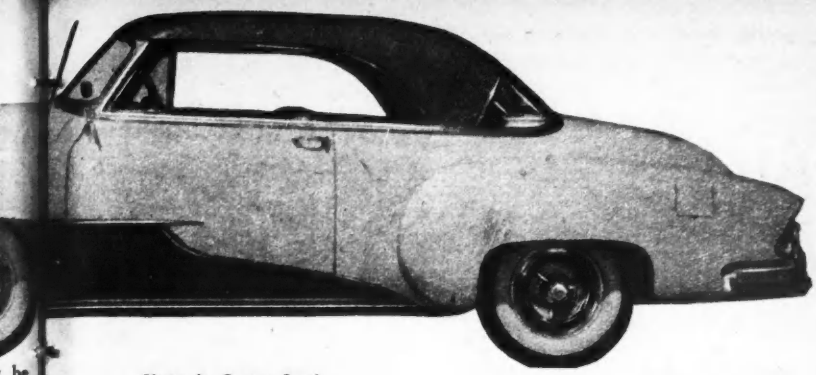
2. Front trim of '53 Packard "Patrician" is taped to the body in the desired position.



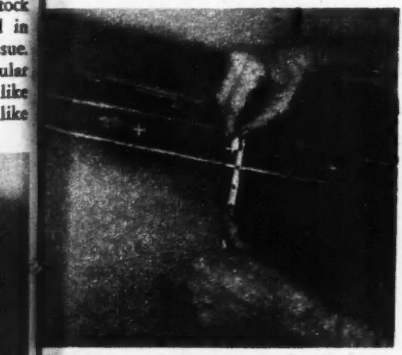
3. Here's both trim pieces fitted to body. Packard piece up front, '55 Olds in rear.



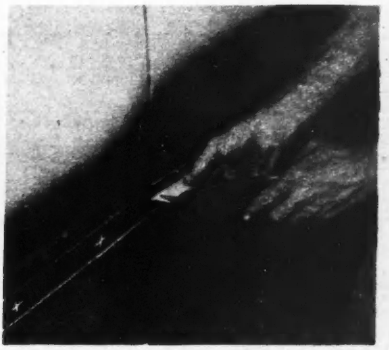
4. With trim taped securely to body, mark off outline of trim pieces with chalk.



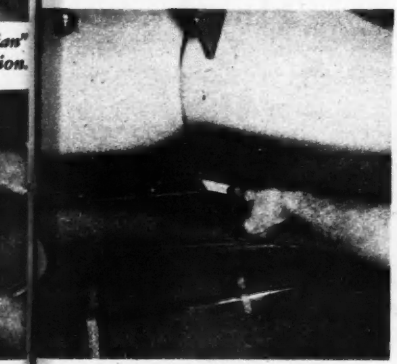
Photos by George Barris



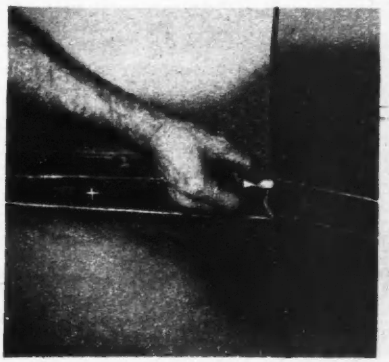
. With measuring tape, mark off centers or drilling the trim's attachment holes.



6. Use small piece of cardboard to determine angle of trim when door is opened.



. Open door, matching angle that is ecessary for trim. Check rubbing, etc.



8. Small section has to be relieved from front fender panel, allowing trim clearance.

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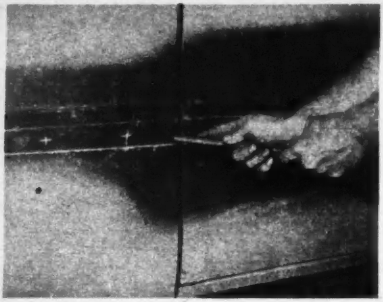
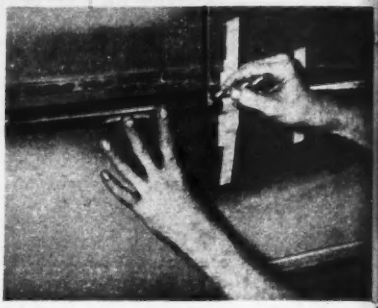
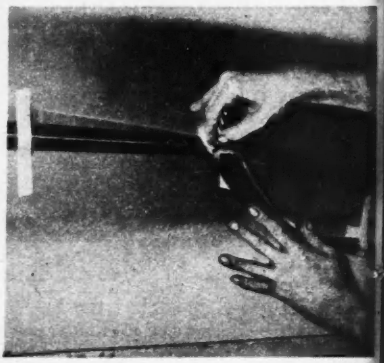


9. Drill small holes along scribed line, then finish out opening with hand file.



10. Retape trim and mark where it will need to be cut at the forward door seam.

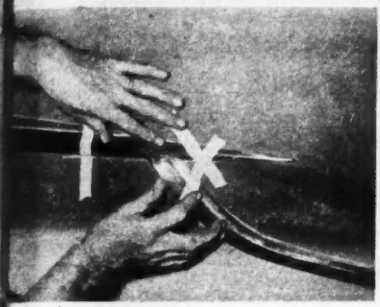
11. Cut trim with fine tooth hacksaw, then finish off the edge neatly with the file.



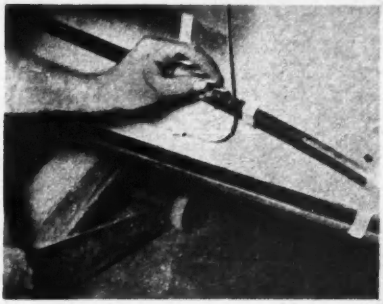
12. Retape all trim pieces. Mark off Olds trim where it mates with Packard trim.

13. Use fine tooth hacksaw to make cut, then finish off edge with the hand file.

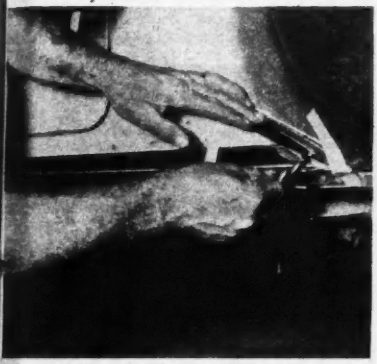
14. Now work the tip of the Oldsmobile trim down slightly using rubber hammer.



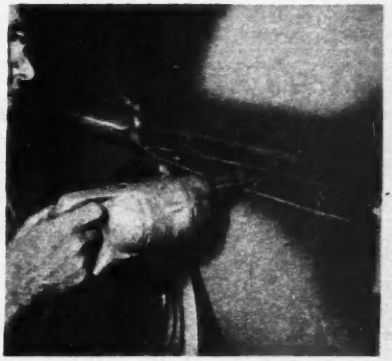
15. Replace the Oldsmobile trim and then check the fit between the two pieces.



16. With Olds trim in place, scribe off where door seam cut will have to be made.

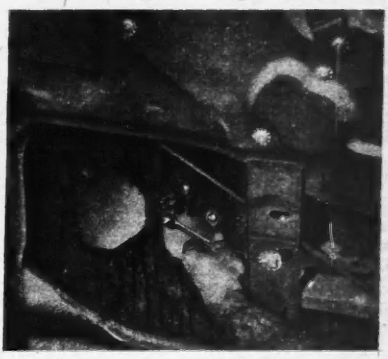


17. Also Mark off for the rocker panel. After making cuts, finish edges with file.

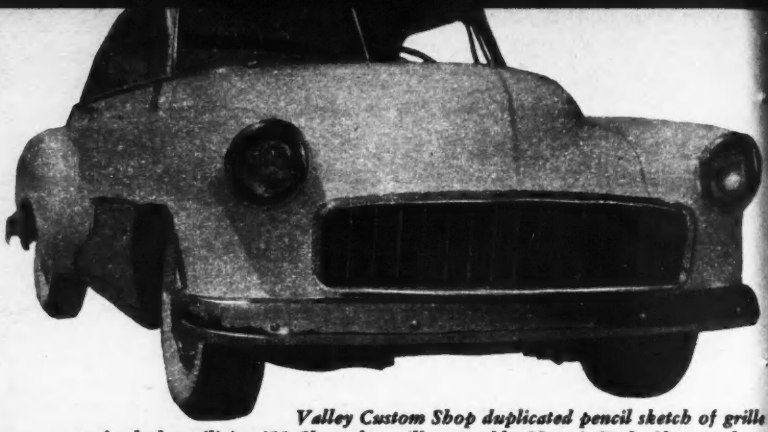


18. Center punch all "T" bolt holes, then drill holes. Eight inch spacing will do.

19. Insert "T" bolts into trim. Both adjustable and stationary bolts may be used.



20. Securely tighten "T" bolts. For areas that are inaccessible, use spring clips.



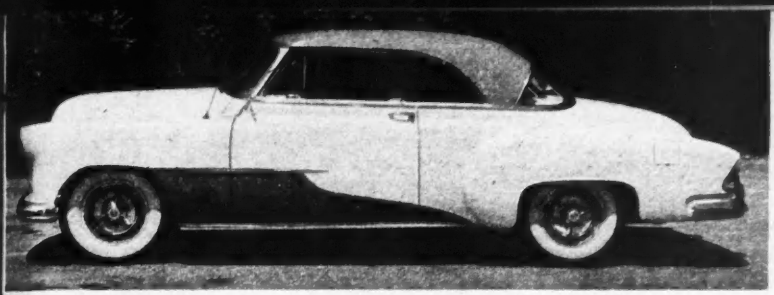
Valley Custom Shop duplicated pencil sketch of grille perfectly by utilizing '55 Chevrolet grille assembly. Norm's Body Shop took on trim removal of hood, peaking hood slightly. Car was lowered 3½ inches front and rear

CAR CRAFT CUSTOMIZES THE - CHEVROLET

Top custom shops join CAR CRAFT in restyling the '49-'52 Chevrolet. After seven months of torch work — here's the finished product

SEVEN MONTHS ago we passed the word along for all Chevrolet custom enthusiasts to fire up the torches and follow us on an exclusive how-to-do-it story on restyling the '49-'52 Chevrolet. Now, with each of the seven monthly restyling features behind us, we can snuff out those flickering torches and stand back for a look at our finished project.

Car Craft's artist, Don Fell, first created our Chev's new appearance on the drawing board with no predetermined components called out for its transposition. From here, the car was routed to several custom body shops — Valley Custom, Norm's Auto Body, Barris Brothers and George Cerny's Custom shop, for the actual customizing. With only the drawings of the car to work from, these talented craftsmen sculptured the "guinea pig stovebolt" into the real McCoy, duplicating Don's original concept to the letter. It's clever to note that the Chev's restyling operation was accomplished by altering only four components along with minor trim



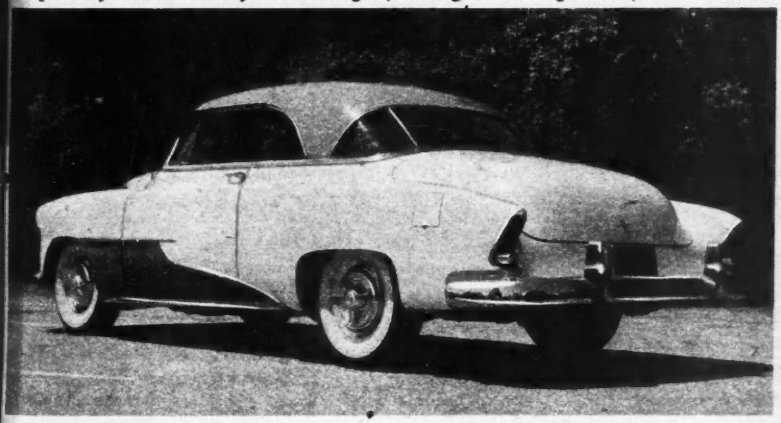
'55 Oldsmobile headlight rims were used to achieve "forward tilt" front fenders. Trim was special adaptation by the Barris Brothers Shop, used for two tone painting.

removal, and that the final price tag was held well beneath the thousand dollar mark.

The finished car serves as a fine example of what can be accomplished when building an inexpensive custom around this particular model Chevrolet. The new appearance of the car now possesses undated styling and a competitive flavor befitting any auto show. We wish to extend our thanks to all the personnel and to the custom body shops that assisted us in this "Customizing The Chevy" series. And for you "stovebolt" fans who have been diligently following and restyling your own Chevs, all we can say is that we hope that you are as satisfied as we are with the end result.

(Editor's Note) Seems that many of you Chev fans, due to vacations, etc., missed certain issues of the "Customizing The Chevy" series, and have been writing letters asking for a breakdown on when the series commenced and what appeared where? The first article was presented in the May '56 issue of Car Craft, and the various steps were: May '56 — Nosing The Hood; June '56 — Adapting Oldsmobile Headlights; July '56 — Installing '55 Chevrolet Grille; August '56 — Filling Trim Holes and Shaving Trunk Lid; September '56 — Adapting '55 Plymouth Taillights; October '56 — Filling Bumper Bolt Holes and Building Bumper Tip Exhaust System; November '56 — Installing Side Trim. All issues are available and can be purchased by writing our "Back Issue Department." Enclose twenty-five cents per issue and specify month when ordering.

"Jet tail" styling of rear fenders was handled by George Cerny's Custom Shop, who competently installed '55 Plymouth taillights, lending Chev an eight-inch fender extension.



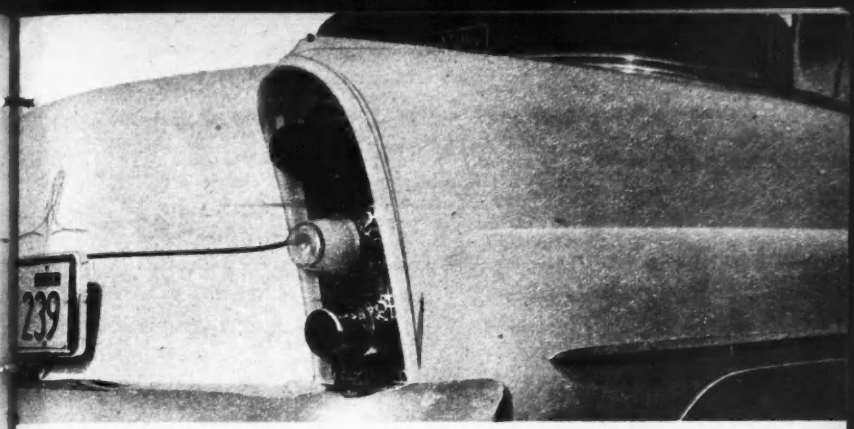
GRAB BAG

Weird design indeed, but one offering a very clever appearance for any late '49 '51 Ford. '53 Studebaker lenses angled across fenders with roll contouring rear deck lid

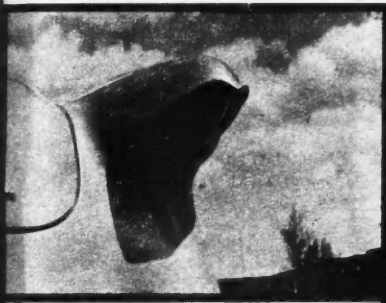
Unusual taillight design is a trademark with top custom cars. Special mixture is accomplished with clever ideas and a few miscellaneous components

photos by Winfield, Rickman, Barris

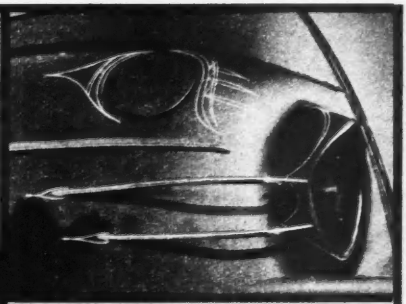
A very unique effect has been created for this new Ford by adding center partition which separates two '51 Buick "bubble type" lenses. Upper fender area is filled



Becoming increasingly popular is the heavy shaded taillight. Here, '55 DeSoto lenses have been set into an expanded metal bulkhead. Lower protrusion is exhaust tip.



A good example of a true hand formed taillight is this tunneled extension neatly molded to fenders of '53 Ford.

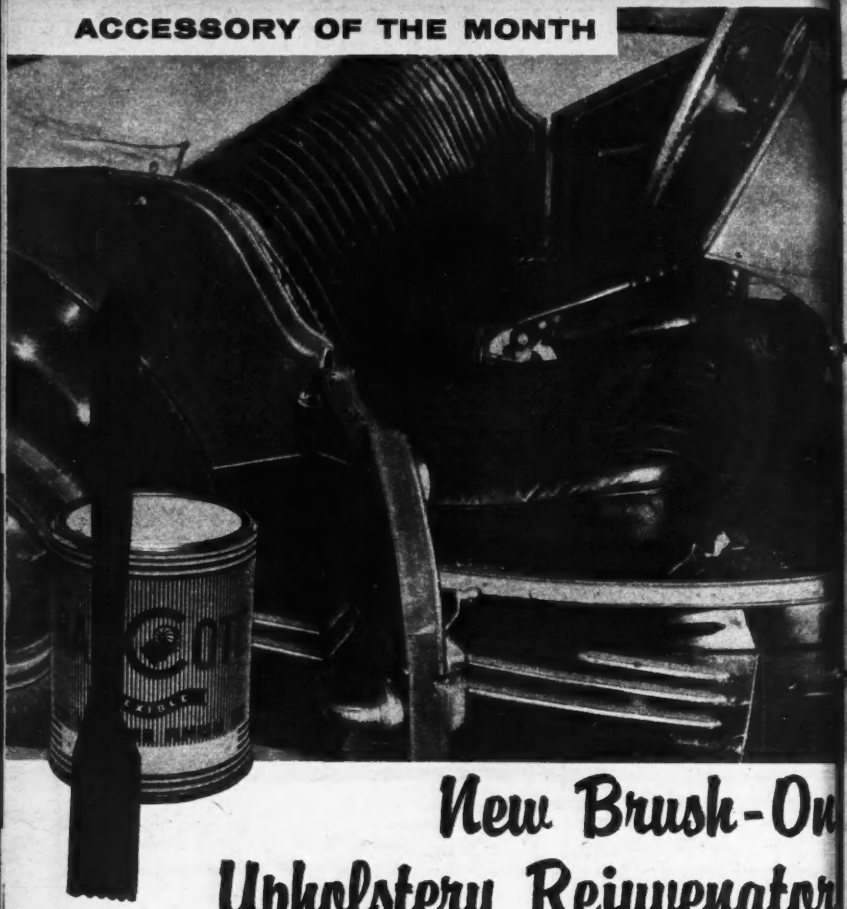


Deeply tunneling the '51 Ford lens on early models has original flair, especially with elaborate rod trim.

Much originality can be derived by putting two V'd lenses together as done here with two '55 Buick lenses.

Another deeply shaded fender with a trio of lenses play up this T-Bird's taillight styling. Note bumper guard.

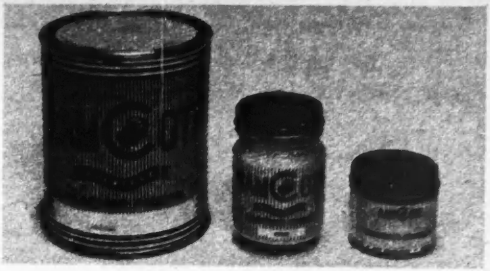
ACCESSORY OF THE MONTH



New Brush-On Upholstery Rejuvenator

"ACCESSORY OF THE MONTH" is CAR CRAFT's method of letting you readers in on the latest items arriving upon the automotive scene straight from the accessory world. This month we put to test a product designed to rejuvenate worn and faded upholstery. The item is called "Ram-Cote". It is a liquid material that can either be applied to seats, door panels, etc., with a spray gun or, painted on with an ordinary paint brush. It dries rapidly (20 minutes to the touch) to a flexible, waterproof, scuff and fade resistant coating that can be safely used two hours from its application. It is manufactured in twelve basic colors, including clear. Special shades can be easily mixed from the basic colors. Two types of material are available. One is designed strictly for use on leather, canvas, cardboard, etc., while still another type takes care of plastic Vinyl materials. When ordering, it is very important that you specify what material you wish, for the leather material will not dry when applied to plastic surfaces and visa versa. For information write: Ram-Cote Products, Dept. CC, 1141 West 69th Street, Chicago 21, Illinois.

Ram-Cote upholstery products include either plastic or leather finish materials, leather sealer for badly cracked surfaces, and a leather rejuvenator-conditioner for restoring natural leather oils. All items are nominally priced and are fully guaranteed by Ram-Cote.



1. First step is to thoroughly clean the upholstery. Carbon Tetrachloride works good or a Ram-Cote cleaner is available.

2. With leather upholstery pieces, natural oils can be restored by thoroughly rubbing in Ram-Cote "rejuvenator-conditioner."

3. Ram-Cote "sealer" is applied to badly cracked areas to stop absorption and to build a base for the finish material.

4. Two coats are recommended for finish material. Can be brushed or sprayed. Material goes on glossy, but dries very flat.

"How I Won the Pikes Peak Hill Climb" continued

though so Jerry had to start trying to sell himself all over again to some other car owner.

Al Rogers knew that the factory entered Chevrolet team of three cars was shy a driver so he suggested Jerry for the job. Jerry wasn't too hot about the idea since stock cars hadn't raced up the peak for many years and didn't look to be a very exciting ride. He agreed to try a couple of practice runs though and soon convinced himself that the stock car race could be a real interesting trial.

"Racing up the Pike Peaks road is different from regular racing in many ways," said Jerry. "The cars are started at three minute intervals and you are on the road all by yourself. It's not like a track where you can tell by looking around you how far behind or ahead of the other cars you are. You only know that you must go all out from start to finish. You have to know the road because if you don't you might waste time by slowing down too soon or too much going into a corner, or you might not slow down enough and end up down the mountain somewhere. If I could start into a corner on the extreme outside edge of the road, just clip the inside edge in the middle of the curve and then end up on the extreme outside again on the other side of the curve, I knew that I had made the corner at my fastest speed. Any time I went through a corner and had some extra road left, I knew that I had to practice that corner some more and go faster."

"After I started driving the Chevy in practice, I found out a lot of important little things about how to get the most out of it. The engine had the Duntov high performance cam, two Carter quad carburetors and were rated around 240 horsepower. The Duntov cam is strictly a high rpm performer and I found that if I let the engine rpm's slip below 4,000, the car wouldn't go like it should. The rear end ratio was somewhere around 6—1 and I used only second (1.31 to 1) and high (direct) gears, never hitting low at any time. If the engine rpm dropped below 4,000 in second, I'd slip the clutch to break loose the rear wheels and get the rpm back up. I got to where I could tell by ear when the engine reached 7,000 rpm, when I'd take a quick look at the tach to make sure that it didn't go over 7,200 rpm, then shift into high. If I let the rpm go over 7,200 the valves would start to float and the engine would loose power. In high gear, 5,800 was just about top rpm on any stretch. If at any time the car started feeling too greasy from rear wheel slip, I'd back off the throttle just a little and feather it to keep the car straight."

I asked Jerry just where he felt the race was won and lost, down on the lower section through the trees, going up through the steep hairpin turns in the switchbacks or up on top in the higher altitudes?

"This is one race that can be won or lost at any spot," Jerry said, "for if you spin out or get sideways in any corner, you've lost time that can't be gained back. The section which I work on the hardest is from the Cove up to the gravel pit through the switchbacks. The road is steep there and the dirt is usually pretty loose, not offering too much traction. If you back off too soon going into the switchback corners, the car slows down too much and valuable time is lost getting it under way again. You have to drive right up to the corner, hit the brakes and start your slide, then get back on the throttle to keep your speed up. If you wait too long going into the corner, you have to brake too hard and this usually causes the engine to load up and run very sour for a few seconds."

Prior to the race, the road was opened for practice between the hours of four and six in the morning several days and Jerry figured out just about how he was going to run on race day. Qualifying runs were made from the start of the race near the seven mile post on the toll road up to Glen Cove.

From his practice times, Jerry expected a time of 6 minutes, 50 seconds. He was top qualifier at 6 minutes, 49 seconds. For race day, Jerry told us he was shooting for 16 minutes flat but he missed this a little as he screamed across the finish line on top of 14,110 Pikes Peak at 70 miles per hour in second gear, 16 minutes and 8 seconds after starting below.

Asked about his plans for next year, Jerry told me that he would most certainly be there for another try. He didn't know whether he would drive a race car or stock car in 1957 but that he did think the stock car division of the Pikes Peak race was going to become much bigger. After seeing the race, I agree 100 percent. In light of the fact that he just signed to drive for Pete DePaola's Ford racing team, we'd bet that next year he'll be chauffeuring a Ford up the hill.

Jerry offered me a ride next year during practice and I think I'll accept, he makes it look like a pleasure cruise and maybe I can learn enough to get through this Los Angeles traffic.

HON. HONEST CHARLEY

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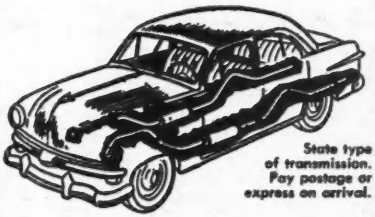

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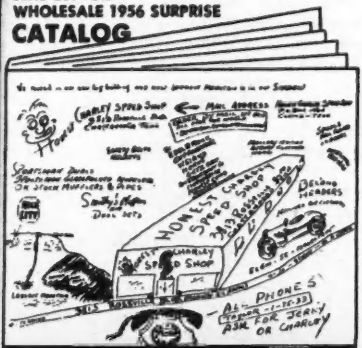

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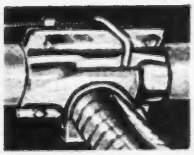

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WHAT'S YOUR PROBLEM?

BY B. ROAC YK

TECHNICAL EDITOR

A HOT SPARK?

Dear Ray:

I have a 1950 Cad "62" convertible with Hydra-Matic. The engine is *not* run at high rpm's. What coil (or dual coils) would give the hottest spark at regular rpm ranges with a stock distributor? Is there available any dual point setup using points that are not expensive or hard to get?

Would also appreciate any suggestions for conversion to standard transmission.

— Alex Morean
Glen Ridge, N.J.

There are a number of good coils for your car on the market, Alex, but do you need one? If your car is stock otherwise and you never run the engine at high engine speeds, I doubt if you would be satisfied. Your stock ignition in good condition will provide all the spark you need. Lest I give you the impression that I am against dual coil or other hot ignitions, let me explain that the above statements apply only to stock engines that are operated at average engine speeds. Non-stock engines and high rpm's increase the load on the ignition and this is when and where a special ignition should be used. As for installing a standard transmission, you will need a flywheel, clutch pedal linkage, clutch disc and pressure plate, the transmission and all of the column shift linkage. Unless you can find the whole works cheap in a wrecking yard, it can get expensive.

LOWERING FRONT OF FORD

Dear Ray:

Recently, I heard of a '49 Ford being lowered with altered spindles which got me to thinking after examining my '49 Ford. Would it be possible to reverse the spindle supports; take the right side support; invert it and replace on the left side and invert and replace the left side support on the right side? This would seemingly give a nice drop to the front end without altering the ride. Would this reversal work without affecting the strength and reliability of the front suspension system? Would any modifications have to be made? If so, what?

— Bob Klose
Grants Pass, Oregon

The very method you describe has been done before but there are many drawbacks. By switching sides and inverting the support arms, the drop is achieved but wheel chamber cannot be corrected without bending the support arms. After this is done the steering geometry is still messed up since the steering arms which bolt to the spindle will be several inches higher than stock and this makes the spindle link between the arm and the steering cross bar sit on a much different angle than the suspension lower "A" frame. The "A" frame and the steering link are engineerd to remain parallel during all angles of both. To correct this misalignment, the steering arms have to be extended and dropped so that the ends are in the same relative position to the A frame as when stock. Bending and welding on steering parts isn't a good idea, especially when the arm will have to be lengthened and the leverage will be increased. This is not good, would suggest you forget the idea.

HENRY J FORD

Dear Ray:

I am thinking very seriously about putting a flat-head Ford engine in my '51 Henry J. What are the difficulties involved? Will the stock clutch hold up?

— Chris Tompkins
Lufkin, Texas

You didn't specify a particular year of engine so I'll pick one for you. Use a '49 or later engine, clutch and transmission. This way, you have a transmission with an open drive line to match the open drive line of your Henry J. There is quite a bit of room in your chassis so you should have little trouble except to fashion new engine mounts.

LOWERING OK?

Dear Ray:

On nearly all of the cars that I have owned, I've used lowering blocks on the rear springs. I recently put a pair of two inch blocks on

my '56 Ford and have been told by several people including a car dealer that I was wrong in doing so. They told me that the blocks put a bind on the transmission, make the differential work all of the time on both sides and just plain causes excessive wear from the transmission on back. I don't believe all of this but just what harm, if any, do these two inch blocks cause?

— Barry Bruner
Piqua, Ohio

Don't listen to those guys, Barry, they are way off base. Lowering your car by use of two inch blocks or by the use of a couple of your two hundred pound friends in the back seat has exactly the same effect on the car. Sure, the angle of the car is changed slightly and to be technically correct, your front wheel caster should be corrected for this change but as for the transmission strain and differential overload, there is no bind at all. Although the angle of the driveshaft is changed slightly too, this will not hurt a thing since universal joints are made to run at an angle and actually wear faster if there is no angle to them while operating. The differential is affected only by the torque applied to the pinion shaft and the traction beneath each rear wheel. The only big disadvantage to lowering blocks is that under quick acceleration or hard bumps, the driveshaft might rub against the tunnel in the floor of the car and you are more liable to drag the rear bumper or exhaust tips going in your driveway. With caster corrected, the car's handling characteristics should be the same.

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by Carl Kohler

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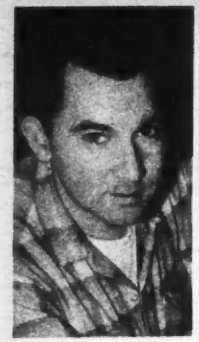

CUSTOM QUERIES

by **Joe Bailon**

BAILON'S CUSTOM SHOP

"FIESTA" HUBCAPS AGAIN?

Dear Joe:

I own a '53 Chevrolet and wish to use the genuine "Fiesta" Oldsmobile hubcaps but I find that they do not fit up to the wheels of the Chevy. What can I do to make them fit?

— Rafael Aug. Luna
Ciudad Trujillo, D.R.

To make genuine Oldsmobile "Fiesta" hubcaps fit your '53 Chev, Rafael, turn the cap upside down and lay it on a block of wood. With a rubber mallet, pound the inner dish (edge of inner circular contour) out slightly. Keep tapping this inner dish out, checking clearance with the wheel, 'til the hubcap snaps on securely. This modification is only needed on the genuine Oldsmobile hubcaps. The duplicate accessory type Oldsmobile wheel covers sold by leading Accessory stores need no modifications, and are considerably less expensive than the genuine Oldsmobile covers.

'47 OLDSMOBILE GRILLE FOR FORD

Dear Joe:

My buddy, Steve Nerl, and I are customizing my '46 Ford and wish to install a '47 Oldsmobile grille assembly. Could you give us a few pointers on just what we will have to do to accomplish the installation?

— Ronnie Morris
LeBanon, Indiana

The '47 Oldsmobile grille bars, in my opinion, Ronnie, work out beautifully in the '46-'48 Ford. A small amount of body work is required to fit in the top bar, but it mainly consists of paneling in with sheet metal and changing the shape of the Ford's grille cavity slightly. In some cases the bars themselves are shortened or modified to fit the opening more perfectly. A few special brackets will have to be made up to secure the bars in the grille opening properly, but I think you will find the complete installation one that can be accomplished without too much hassle.

CUSTOM GRILLE FOR CHEVY

Dear Joe:

I am a new reader of CAR CRAFT Magazine and thought maybe you could give me a little information on installing a '53-'54 Oldsmobile grille bar in my '50 Chevrolet. I have nosed the hood and removed trim from the deck lid and am now ready for the grille modification. Can you tell me if the Oldsmobile grille will fit, and what modifications will be required? Possibly you have a better grille idea in mind for this particular year Chev, if so, I would sure appreciate any suggestions on your part.

— Jerry Whisman
Purdy, Missouri

The Oldsmobile grille bar will fit in your '50 Chevrolet grille, Jerry, but it will have to be shortened and V'd slightly in the center before it can be installed. Rechroming will be necessary after the bar has been modified. For a little added design feature install a few grille teeth from a '52 Lincoln onto the bar. About four should get the job done. As I mentioned earlier to another reader who inquired about grille ideas for this '50 Chevrolet, the '55 Chevrolet grille assembly fits up very nicely to your particular car's front end. A step-by-step story was presented in the July '56 issue of CAR CRAFT on just such an alteration. The issue is available and can be purchased from our Back Issue Department.

PUSH BUTTON DOORS WITHOUT JUICE

Dear Joe:

I have a '47 Mercury club coupe that I am customizing. I would like to install a push button system for the doors, but not the electrical setups found on most custom cars. I have heard that there are manual push button door latches available, but I do not know where to look for them, let alone where to buy them. I would appreciate any suggestions that you might have that would solve my situation.

— Jack Weller
Bakersfield, California

The '40-'41, and '42 Lincoln manual push button door latch is what you are looking for, Jack. The installation of these latches into a Ford

product require considerable work, but if that's what you want, the modification is definitely possible. I suggest though that you check in with a Lincoln agency or a custom shop that has performed this alteration for a little information before going ahead with your project. I don't know what you hold against electrically operated doors, because to me, the electrical setup is a much easier installation than the one you plan.

'56 HEADLIGHTS FOR '52 MERC

Dear Joe:

I own a '52 Mercury and want to french the headlights. Will I be able to make use of the '56 Ford headlight rim for the job? I want a shaded and peaked styling similar to the Ford rim. Possibly there is another way to achieve this effect, if so, could you fill me in?

— Ken Clouston
Los Angeles, California

Sorry, Ken, but the '56 headlight rims are made from pot metal and can not be used for frenching your '52 Merc's headlights to the fenders. For a substitute I suggest that you approach a custom body shop and have them build you special shades from sheet metal to the design that you desire.

CARQUIZ ANSWERS

(see page 66)

1. '52 Ford
2. MG
3. '49 Mercury
4. '51 Lincoln
5. '56 Chrysler Imperial
6. '54 Chevrolet

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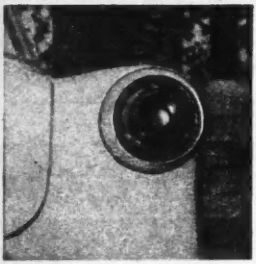

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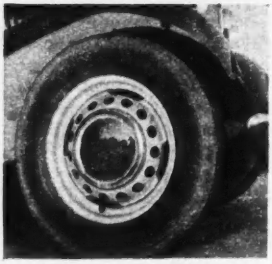

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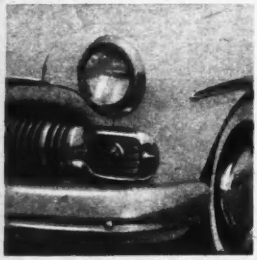

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'49 Mercury

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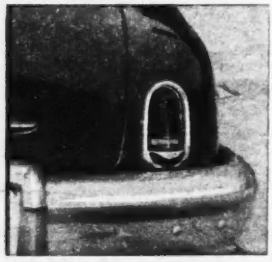

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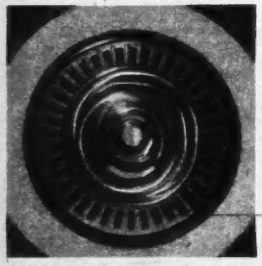

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'56 Corvette

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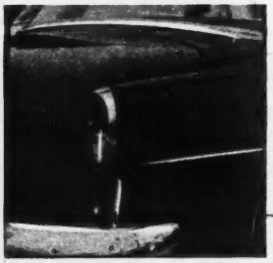

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'54 Chevrolet
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'53 Plymouth
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'54 Hudson

6.

Answers on page 65

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